THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

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TERMS—SIXTY CENTS PER YEAR.—Ten copies of THE CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Six Dollars.

THE CULTIVATOR has been published thirty years. A NEW SERIES was commenced in 1853, and the eleven volumes for 1853, 4, 5, 6, 7, 8, 9, 60, 61, 62 and 63, can be furnished, bound and postpaid, at $1.00 each—the set of 11 vols. sent per Express for $8.25.

"THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two volumes yearly of 416 pages, at $2.00 per year, is issued by the same publishers.

The Cultivator & Country Gentleman.

MONEY-MAKING IN FARMING.

In a recent article under the title of "Concentrated Farming," the results to be anticipated from the application of increased capital in our Farm Management, were illustrated by a comparison between the profit of getting a certain product from fifty acres by good farming, or from one or two hundred acres farmed in the usual way. In a paper read before a foreign Farmers' Club a few weeks ago, under the title of "High Farming, and where is the money to come from?" a similar calculation was presented, when a warm discussion followed, and one of the speakers brought forward the common objection that it is well enough to give such advice, but "what will be the consequence if everybody follows it?" All the old-style farmers present took this to be a "poser." "If all the farmers in England go into the market at once," said the objector triumphantly, "for three pounds' worth of manure per acre, what point will the prices of these fertilizers reach?" and another of the same school of thinkers shortly after said, not less decisively, that a policy had been advocated "which, if carried out, would leave half of the country out of cultivation." Now this was up in the County of Cumberland, into which the spirit that animates the more productive and richer English districts, has not yet very deeply penetrated, and where moreover Mr. MECHI not very long before had made a visit and so completely startled all the time-honored opinions of the inhabitants by some of his very biggest stories, that they were evidenntly taken by surprise when they found that any such heterodox doctrines should actually have sprung up in their own midst, and at the same time completely on their guard not to be "bamboozled" by figures or reasoning tending in the direction of the worthy Alderman's astounding statements.

Now we have ourselves heard the corresponding question frequently put—You advise us to farm fifty acres *well*, rather than a hundred badly—but what will become of the rest of the farm, and of the half of the State, that is thus abandoned? The answer that at once suggests itself seems to be purposely overlooked, —that but very few—it is astonishing how few—will really act in accordance with the spirit of the recommendation, and that those who do so will consequently profit by the slowness and negligence of their neighbors. When Sir Robert Brisco, the author of the paper above referred to, urged an increased expenditure upon artificial manures, he was very well aware that his advice was not likely to exert a perceptible effect upon their market value,—but, for the place, it was probably good advice for all that. And so when we suggest the application of increased capital, either in more labor, or in draining if necessary, or in buying better stock, or in any other requisite direction, providing it be judiciously done, the picture never presents itself to us of one-half or two-thirds of a farm suffered to lie wholly idle, nor of a large proportion of the State given up to the wayward control of Nature. On the contrary, we are reminded of cases in which men have put their energies and brains into the land, one field after another, recognizing the true economy of liberal expenditure to bring them into the right condition, and extending this process in a series of years, until, finally, not one-third nor one-half of the farm alone was yielding a proportionately liberal return, but nearly or quite its whole extent.

When we noticed the first chapters that came to us of Mr. MITCHEL'S entertaining narrative of experiences on his Edgewood farm, we did not know whether the sequel was to give the balance sheet of the undertaking or not, and since the book has been before the public we have not before had an opportunity of alluding to the subject. Many of our readers have the work, and can consult it for themselves, but for the benefit of those who have not, let us examine very briefly what was there accomplished. The lesson of all that Mr. Mitchel writes on the subject "Does Farming Pay?" including a graphic picture of how it is generally made to pay by the "fore-handed" Yankee cultivator, viz., by the closest of economy and the 'cutest of bargains,—is this: that "the faculty of right-spending is at the bottom of all signal success in agriculture, as in other business pursuits." Like most men who have been accustomed to business habits—and, we may add, unlike farmers as a class—he has kept accurate accounts, and he gives them, fractions omitted, not to show that he has himself achieved

"signal success," but to prove we presume that his experiment in farming has not been merely for amusement, and that instead of being discouraged by the investments required at the outset, he was on the way to an end that has shown the correctness of the principles on which he was acting.

He took the farm in a condition requiring great outlay in proportion to the immediate return, as will be seen by the following statement of the first year's results:

First Year—Edgewood Farm.

DR.

To valuation of live stock,	$1,200.00
Interest on do.	72.00
Purchase of new stock,	300.00
Labor,	1,200.00
Hay and Grain bought,	150.00
Seeds, Trees, &c.,	150.00
Manures,	250.00
Wear and tear of Implements	100.00
Taxes, insurance, and incidentals,	100.00
	$3,522.00

CR.

By valuation of stock at close of year,	$1,400.00
Sales do.	250.00
do. milk,	600.00
do. butter,	50 00
do. vegetables,	60.00
do. fruits,	10.00
do. eggs and poultry,	25.00
do. sundries,	75.00
	$2,470.00
Balance—*Loss*,	1,052.00
	$3,522.00

"First years of any adventure," he remarks, "do not offer a very appetizing show—least of all the adventure of restoring a neglected farm." But by the third year, there is evident a change for the better:

Third Year—Edgewood Farm.

DR.

To valuation of Stock,	$1,500.00
Interest on do.	90.00
Purchase of new Stock,	200.00
Labor bills,	1,100.00
Manures,	150.00
Hay and grain bought,	120.00
Seeds, trees, &c.,	50.00
Wear and tear of implements,	100.00
Taxes, insurance, and incidentals,	100.00
	$3,410.00
Balance—*Gain*,	615.00
	$4,025.00

CR.

By valuation stock, close of year,	$1,600.00
Sales do.	200.00
do. milk,	1,650.00
do. vegetables,	250.00
do. fruits,	125.00
do. poultry,	100.00
do. sundries,	100.00
	$4,025.00

"This has a more cheerful look, but is not gorgeous;" but the fields are improving as well as the receipts, and the capital begins to show. Next we have:

Fifth Year—Edgewood Farm.

DR.

To valuation of stock,	$1,700.00
Interest on do.,	102.00
Purchase of new stock,	180.00
Labor bills,	1,000.00
Manures,	100.00
Grain purchased,	130.00
Seeds, trees, &c.,	60.00
Wear and tear of implements,	100.00
Insurance, taxes and incidentals,	120.00
	$3,492.00
Balance—*gain*,	988.00
	$4,480.00

CR.

By valuation stock close of year,	$1,700.00
Sales of stock,	230.00
do. milk,	1,900.00
do. vegetables,	250.00
do. fruit,	150.00
do. poultry,	130.00
do. sundries,	120.00
	$4,480.00

In other words, he adds that the five years show an average annual

Outlay for working expenses,	$1,800.00
Interest on total investment,	1,000.00
	$2,800.00

Against

Average annual cash sales,	$2,600.00
Home consumption and house rent,	900.00
	$3,500.00

being an average net return of $700 per year for the first five years. Now we doubt very much whether this net return was ever equalled in the preceeding history of the farm, even if it may have been under a manager who lessened the labor account from $1,000 to not more than $200 or $300 a year by his own muscular exertion, and that of his sons, and who sold all the best of what he produced so as largely to increase the proportion here borne by cash sales to the home consumption. These figures are, of course, the farm account by itself; whatever the author may have spent on grading his lawns, or "architectural dovecots," or other "fancy" operations, he does not tell us, and expenses of that kind have nothing to do with the farm management.

Such figures as these will strike readers very differently, according to the various circumstances in which they are placed. What seems large to a New-Englander (outside of the most fertile valleys,) may have quite another look on the rich grain farms of Western New-York, and perhaps no meaning at all to the wholesale Prairie farmer. But taking an old farm, improving it as has been done, and adapting the products obtained to the nearest market—the example is a fair illustration of the idea with which we set out, that capital and foresight for the future are essential elements in profitable farming. To answer a parallel objection to that already noticed—"but we can't all of us live by selling milk, and if we tried to, who would buy it?"—we may add that the great problem for every wide awake man is to choose his own department and *excel in it;* if there is eager competition, to out-run his competitors, but of course to let the competition he is likely to meet have its due weight, with other considerations, in deciding the end he is to seek. And every such contribution as this to the recorded statistics of farm management, we would have studied and "inwardly digested," although we may be incurring the danger to which Mr. Mitchel alludes in speaking of the accounts that are published of many a prominent farm—that the neighbors of its proprietor, "when they read of him in their agricultural journal—if they take one—as a progressive and successful agriculturist, may laugh a little in their sleeves in a quiet way, and conceive, I am afraid, the same unfortunate distrust of the farm journal, which we all entertain—of the political ones."

The Culture and Preparation of Chiccory.

As we believe a small piece of ground, if only sufficient for home use, may profitably be devoted to this crop, we shall continue to call attention to it, by transferring to our pages such notes on the subject as may seem useful to our readers. J. S. CHRISTIAN, in the

Prairie Farmer, who has grown it many years, gives the following directions for its cultivation:

"Prepare your soil in every respect as you would do for either carrots or parsnips, as the chiccory root resembles the latter (especially the crowned-head parsnip,) so much so that it would be difficult to single the one out from the other, if the tops were both taken off before mixing them. I conceive these three points necessary to be observed: spade deep, manure well, and sow when the ground is warm; but as the seed is very small, precaution should be had to sow thin—or else thin out to about four inches in the rows—take up same time as you would take up the above named vegetables."

Mr. C. gives the following directions for preparing the crop for use:

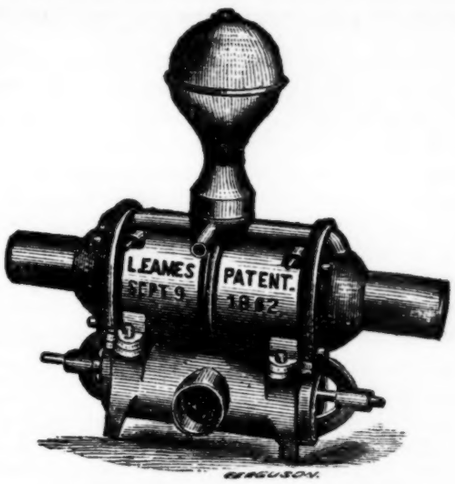
"I find it altogether preferable that as soon as the roots are taken from the soil, say in the month of October or beginning of November, to have them clean washed, tops cut off, and place the whole mass in a convenient place for *slicing* up; cut each piece not larger than half an inch thick, and let them be dried in the oven, at leisure, in pans or dishes. When thoroughly dried, stow away in thick paper bags, to remain until wanted for use."

PLANTING PEAR ORCHARDS.

Every fine thing has its draw-backs. The pear, in some respects the finest of all fruits, and second only to the apple in the long period of supply which it affords, is more liable than other fruits to diseases of the tree. Were it not for this liability, orchards would become much more numerous, the fruit more abundant, and prices lower than pears can ever be afforded at.

The old rule is an excellent one, that when one pear tree in an orchard dies of blight, two more should be immediately planted. This will keep up the full number and a little more. The suggestion now occurs, which we offer to every one about to set out an orchard of pears, to keep a small reserve nursery to fill out all vacancies of the kind. It would be well, for example, where it is intended to set out a thousand trees, for the owner to procure twelve or thirteen hundred, set out the best, and place the smallest and poorest in nursery rows; or, what may perhaps be better, procure second or third rate trees for this reserve nursery. It is not absolutely necessary that the precise varieties should be taken, so that the same sort may be in every row, for the top of no tree is more readily changed by grafting than that of the pear. Where the nursery from which the purchase is made is in the same neighborhood, the trees may be obtained as they are wanted; but even here there would be an advantage in the reserve nursery, because the trees, having been once transplanted, may be removed again with less danger and less check in the growth. Where the nursery is situated at a long distance, a few trees cannot be well sent for at a time, as needed, and the whole thing will be apt to be neglected, and the orchard ultimately to present many vacancies.

Sheep-Shearing.—We have organized a wool-growing and sheep-shearing institute, called the *Cayuga County Sheep-Shearing and Show*, which is to be held about the first of June. When the day is set, I will give you notice. H. A.



EAMES' WATER ENGINE.

Above we present an engraving of the water engine invented by L. Eames, of Watertown, Jefferson Co., to which we have heretofore alluded, editorially, and a report on which, at the State Society's annual meeting, was published in our last number.

This invention is intended for all purposes to which the ordinary water ram can be applied, and it is thought can also be used to advantage on a scale to which the latter would be practically inadequate. At the same time, the inventor states that it can be made to work on a stream *too small* for the water ram. It is a somewhat more complicated and expensive machine at first; but if, as is asserted, it proves to be less likely to require constant oversight and frequent repairs, it may be cheaper in the end. One main point claimed in the comparison with the water ram, is that it utilizes double the amount of water in proportion to the waste expended in driving it; and, what is also a matter of convenience, the same engine can be regulated to supply more or less water, as may be required at any given time. With ten feet fall water can be carried to a height of 200 feet.

Eames' Water Engine is already coming into use quite extensively in the northern part of the State. Mr. E. has shown us certificates from several parties—one of whom, for example, carries water a distance of 75 rods to an elevation of 96 feet, delivering 6 gallons per minute, from a fall of 15 feet. All speak well of the success of its operation.

BUTTER MAKING IN WINTER.

EDITORS CO. GENT.—During the cold snap the fore part of January, we commenced to try to make some butter. We milked two cows—one had a calf shortly prior to that time, and the other had been milked during summer and fall—got about five gallons of milk per day, which froze nearly solid before the cream could all rise, and we found it a little difficult to get it to turn, but did so by setting the vessel near the fire. Churned every other day, and made during the cold weather just one pound a day, and during the month of January made 28 pounds of as nice butter as one need to want.

I feed my cows on chopped corn, with occasionally a little meal mixed with it. My cows run out day and night, except in the coldest weather. One of my cows is one eighth Durham, the other common scrub stock. Butter is worth 20 cents at home, and 35 cents per pound at Springfield, 30 miles distant from here.

Melville, Mo., Feb. 7, 1864. E. S. R.

PRESENT AGRICULTURAL PROSPECTS.

In such times as these, one person is as well qualified to play the prophet as another, with respect to the course of public events, and their bearing upon many of our private interests. Whether war is to continue or to close, at home; whether Europe is to be summoned to arms; whether the apparent prosperity of our finances conceals an impending storm; whether this or that investment is to return dividends the most satisfactory; whether real estate should be held or sold—all these and other similar problems are dependant on contingencies which no eye can trace into the shadow of the future, except on the merest conjecture.

Most of these questions, however, mainly concern those whose capital is invested in commerce, in manufactures, or on the stock exchange. With them, fortunately, the Farmer's affairs are not so deeply involved. He, at least, can safely look forward, unless we greatly mistake all the indications about us, to a year of great demand for all that he can produce, and, with the blessing of Providence upon the yield he receives, to one of prosperity almost without precedent. The war excitement abroad, even if it culminate in no more extended collision than has already occurred between the disputing parties, is a diversion in his favor. The war, at home, if it continue, cannot interfere to any serious extent with the value or amount of his products; stocks in hand are generally low,—there is little or no Indian corn in the country, and even a considerable surplus yield beyond our own wants and the prospective foreign demand, could be held in store without over-burdening the market. And, on the other hand, if another harvest time is to be the companion or immediate precursor of peace, there is nearly the whole South to be fed from our droves and granaries. With debts generally lightened; with quicker and more certain sales; with larger, and on the whole, not less satisfactory investments—thus, with a fair season and ordinary exertion, we hope our readers may write the history of 1864 in their books and on their farms.

The last number of the Genesee Farmer suggests the increased use of artificial manures by Eastern farmers the present year. The editor truly gives, as "the only reason why we have not hitherto used as much guano, superphosphate, and other artificial manures, as the English farmers, that we did not get enough for the produce to make it pay." If, he says, for example, "you can be sure of getting $1.25 per bushel for barley, it will pay to use superphosphate and guano for this crop. From 200 to 300 pounds per acre will probably give you 10 or 15 bushels per acre extra, and your land will be in better condition for the next crop." And no more favorable opportunity could there be—with such a future before him—for the farmer to do this. We have lately referred to the increased use of capital in farming; and, just as the merchant who finds the way opening before him for a profitable extension of his business, will lay aside some hundreds or thousands of dollars to expend in advertising it more widely, so we suggest that the farmer should devote a part of the earnings of the past, to the application of such fertilizers as his knowledge of his land and the crops he raises, may lead him to judge most likely to result in advantage upon the coming harvest. Many may have made the trial of one fertilizer or another heretofore, and found the return but little greater than the outlay, owing to low prices, and they will already have a fund of experience to draw upon as to the most profitable direction in which they can now make such purchases, with a fair expectation of better success. And if dealers in bone and other manures, in guano, poudrettes, &c., appreciate the present condition of affairs, they will be pretty sure to let the farmers know where their manufactures are to be procured.

Of particular specialties in Farming, there is one that perhaps needs no word from us to call attention to its prospects—the production of Wool. We have before us at the present writing, an article from an Onondaga county correspondent, originally published the other day in a Syracuse paper,—presenting a strong argument as to the likelihood of fully sustained prices for this staple, notwithstanding the fact that manufacturers seem indisposed to buy at present rates to any greater extent than is absolutely necessary. It is not improbable that Congress may impose an additional duty upon foreign wools, while the supply of cotton is certain not to be so increased as to afford any relief of consequence to the market. It is claimed, moreover, that the stock of wool on hand is much less heavy than the manufacturers estimate it. And with new territory opened by our armies to the sale of our manufactures, and with new recruits as well as the old force to be clad and re-clad, the opinion certainly seems plausible that those who now hold Wool should look for an advance rather than a decline before the new clip comes in, and that, when *that* arrives, it cannot bring about a lasting reduction of price to any important extent.

The condition of our currency is such, finally, that we can scarcely hope for much of an abatement, very soon, in the rates of gold and foreign exchange. This will operate to maintain the prices of our Butter and Cheese, in 1864, as in the past two years, so that we cannot prognosticate, for Dairying farmers, a future less encouraging than that which apparently awaits those who are engaged in the production of grain and wool.

LOAM AS AN ABSORBENT.

Many years ago, when the importance of securing and fixing the volatile parts of manure first became known and appreciated, many substances were suggested for this purpose, most of which were obtained with difficulty or cost. Among these were sulphuric acid, charcoal, sulphate of lime, dried and pulverized peat, &c. Later experience has proved that clay and all soils which contain it in much amount, known by the name of loams, possess this absorbent power in a high degree. There is no necessity, therefore, of going far or incurring much expense to obtain what is nearly everywhere at hand. A year or two since, a statement of the experiments of GEORGE HASKELL was published in the COUNTRY GENTLEMAN, showing what he had found most valuable for intermixing with pulverized bones. After various trials, he ascertained that nothing was equal to soil. This was placed in alternate layers with the bone dust, and, after a few days, when strong fermentation had occurred, and the

heap had begun to cool, it was chopped down, worked over, and thoroughly intermixed with a shovel. Repeating the process after a second and third heating, it was converted into an excellent manure, which he found superior to the common super-phosphate, while it was manufactured at half the cost.

The great advantage of using loam or soil is, that it is always at hand, except in light, sandy districts. It may be employed for making compost heaps in the field where these heaps are to be used, without the trouble and expense of drawing it to the yard and back again. Dead animals, simply buried in soil, will, in the course of a year or less, entirely disappear by absorption, except the bones, and will be found to have imparted highly enriching qualities to the soil in contact. The practice of using charcoal dust, plaster, &c., to destroy the odor of vaults and stables, may be obviated by employing thoroughly dried and pulverized loam in their place. The object of drying it perfectly is only to absorb the liquid portions of the manure.

These facts bring us to another recommendation which we have often urged, viz: Scattering fresh manure on all loamy soils where it can be properly absorbed. To bury it deep at once would be like boxing it up or sealing it in air-tight bottles, where it could not be diffused through the soil, or rendered available, and where fermentation would be nearly suspended. A better way is to harrow it finely and thoroughly on the surface, and, if in the spring of the year, to plow it in to a moderate depth, where it is quickly absorbed and rendered available to the roots of the young plants. If applied in the fall, it need not be turned in after the harrowing, and in fact does about as well left untouched on the surface, where rains and melting snows will wash all its soluble particles in contact with the soil; but for this purpose it should be spread with perfect evenness.

WINTERING HORSES ON GRASS.

Messrs. L. Tucker & Son—"Some things can be done as well as others"—so said Sam Patch; and in attempting to prove the fact to the world, he paid the penalty of his temerity. Now, if I should attempt to prove to the world that horses would live and prosper in Vermont on grass, and grass alone, during winter, they would at least expect me to fail in the at tempt. Yet, strange as it may appear, it is a fact; and I have at this time fifteen horses that are still in the pasture, where a part of them ran during the summer, and as yet have had no other feed than grass, which they have dug from under the snow. Some of said horses were worked until late in November before turning out.

I have practiced wintering my horses and colts in the above manner for 20 or 25 years past, seldom feeding them more than from three to six weeks during the winter. When the snow falls early and remains dry, the horses retain their flesh, and it is only when the ground is covered with ice or a very hard crust, that it becomes necessary to feed. About one year in three they go through entirely on grass.

It was formerly thought necessary to put the work horses into the barn about the first of March, and fit them for what we term spring work, but of late they are taken from the pasture and put directly to the plow, where they do good service after the first day or two.

I have a horse now in use, about 25 years old, that spent most of his winters in the pasture, that was hitched to a plow in April, from which he was unharnessed the November previous and turned loose, a sudden change in the weather having frozen the plow into the ground, where it remained during winter, the horse feeding during the time upon grass alone, and was taken direct from the pasture, put with his mate to the plow, and completed the furrow.

Shelburne, Vt., Feb. 10, 1864. EZRA MEECH.

P. S.—I have written the foregoing, as you expressed a desire to learn how we winter horses in Vermont, and as you have unbelievers among your patrons, they must come and see. E. M.

HOW I WINTER MY CALVES.

Messrs. Editors—Much has already been said about the care of calves in winter, but still calves are dying with black leg by scores every year—so much so that many farmers have quit raising them; and is it not for our interest to state all the facts coming to our knowledge, and throw all the light upon this subject that we can, and thereby benefit all. I know of some farmers that have a fund of knowledge and experience stored up, which they will tell you freely if you ask them, but they will never so much as write one letter to a public journal, that all who read may have the benefit of their experience.

A year or two since, I called at a neighboring farmyard, to see some good stock. The owner said: "Come over here and see my calves. Ain't they nice? This I raised, and that I bought, and paid $15 for it, and it is not yet weaned." A few days after, I was going by again, and he called to have me stop and see those calves apain. He was afraid one of them was going to die; and sure enough, I told him it would die. It had got the black-leg—nothing could save it, and it died that day. I said to him, friend, you know we are to have no idols in this world. I am afraid you have fed that calf too high. He said it had had all it could eat, and the best. This shows us that in raising calves we must avoid the two extremes—too much feed, or too little.

I have raised calves, more or less, every year for 25 years, and I have never lost one by disease in the time. Now I will tell my way of managing: First I give them a good warm stable, with a plenty of good hay and pure water, and in addition to that, I give them almost daily, rye bran and salt—take of bran one bushel, and add to it about one quart of salt (not very coarse)—mix the whole thoroughly together, and give each calf a good pint every day. Rye bran is better than meal; it is more laxative. You may add a few turnips if you choose.

Some farmers complain that calves waste their hay, but mine waste none; their mangers are so constructed that they cannot. A long row of common mangers 20 inches high—bottom raised six inches—then a strip of scantling or thick board, 16 inches above the top of manger to nail strips of upright boards to, leaving spaces 10 inches wide, for the calves to put their heads through, and before these holes, place as many boxes as you have calves; or the manger will answer if made tight and brought to a focus at the bottom, and cleaned out every day. Place the bran in the boxes at night before putting them up, and throw open the door, and there will be a general rush of the calves to their mess—all other cattle excluded on account of the mangers, for no other stock can eat there.

With this treatment, the calves will come out bright in spring. You can add more bran and turnips if you wish to make them fat, but it must be gradual; then follow up the salt until they are well acclimated on grass, and we consider them safe. L. F. Scott.

HOW TO WINTER CATTLE.

EDS. CO. GENT.—It has always appeared to me very useless to write on agricultural subjects in the present advanced state of the science, without we can give experiments made with care and continued for a long space of time, and on this account individual views on feeding differ so much that if a person cannot say I weighed this hay, or I weighed this grain, it is only with him a matter of opinion, and that of but little value. Now actual weighing feed is troublesome and expensive. Weighing cattle, except you own a scale, is impossible, and without this is done experiments in feeding are useless. Nature gave horses and oxen teeth. Teeth are the natural instruments for cutting up feed and hay; therefore mills and cutting boxes go against nature, are expensive and useless. To try this, take, as I have done, two oxen—feed one cut hay, one whole hay for a month; weigh the hay every day, the oxen every week. Then for another month reverse the process as to the cattle, and find *in each case* a gain in weight (by the process of cutting) in the cattle, and a great saving in the hay sufficient for me to employ, at $15 a month, a man to cut the hay for a large stock. Then comes the question, is this probable, is it natural? I can only answer, try it and find it so.

Again, cattle's legs are made for them to walk and run with; constant confinement in a stable will make them sick; in a month they will be so stiff they can hardly move. This is common sense, and must be so. Try it. I keep a heavy stock of all kinds of cattle. As soon as winter sets in fairly they go in their stables, and *never leave them, except sold*, until the end of April. How sick and unhappy they are. I sell the stock when I can, and if a man comes to buy a few head, he will not drive them the same day; they are so wild and run so, I must turn them in the yard, to quiet them, for a day. I injured my cattle on the first year of trial by imperfect ventilation; now I use slat doors and large ventilators, as my stable is half under ground.

I never use stanchions or chains; a rope long enough to let the animal have comfortable room is all that is required, as in a short time an animal that may take four men to get it into the stable becomes perfectly quiet. Water, and plenty of it, I consider indispensable. I like to keep it constantly before them; I have seen an animal drink two or three times in an hour. Very regular feeding they always get, but never any feed left in the feed tubs after an hour from the time of feeding. Mine are store cattle of all kinds and sizes, taken in the fall to sell. I seldom feed an animal for beef, I cannot make it pay.

This is the result of seven years' experience in feeding stock. One winter I began with 175 head; of course I had not stable room for all, and in almost every case purchasers picked out the stabled cattle, and when others were put in their stables an alteration in their appearance could be seen in a week.

Fishkill Landing, Duchess Co. WM. H. DENNING.

Tree Cotton in California.—A correspondent of the Prairie Farmer, writing from Butler Co., Cal., says: "I am now engaged in raising Tree Cotton. The first year, from seed, it grew four feet. Frost don't affect it. The second year it bears a small quantity of cotton, but the cotton is mixed with the seeds; the third year the cotton and seeds are separated. After the third year the yield is one hundred pounds of cotton to each tree. The tree grows as large as the peach tree."

CURE FOR SCAB OR ITCH IN SHEEP.

MESSRS. EDITORS—I have been a subscriber for nearly three years, and for the same length of time have lived in Illinois, making farming my profession. I bought four hundred and fifty sheep two years ago last spring. In the following spring I found that the *scab* or *itch*, had made its appearance. I was a new beginner, and did not know anything about sheep or their diseases, but obtained from a shepherd the following recipe, to which I made an addition, which entirely cured the flock. This will do to doctor them in winter as well as summer:

To two pounds of plug tobacco add eight gallons of water well boiled—add to this two quarts of lime-water, about half the strength of weak white-wash—to this add three tablespoonfuls of pulverized sulphur. These must be well shaken together, and when used, to each bottle full (meaning a quart,) must be added one gill of spirits of tar. This is a sure cure.

It must be put on in the following manner: A cork with a quill for the bottle, so that the liquid will not flow too freely. Then catch the sheep and make a furrow from his head to his tail and pour on the liquid, but be sure the liquid soaks in before opening a new furrow. These furrows should be made all over the sheep, running from the head to the tail, about four inches apart, so that the whole skin feels its influence. Then mark the sheep if you intend to place him again with the flock. After the flock is gone through with, the yard and house should be well white-washed, and a light sprinkling of the chloride of lime be put on the ground in the yard. If this is done, it will save the wool from being shorn before the proper time, and no fear may be entertained of farther trouble. Always dip after shearing, and just before bringing in, in the fall, and you will never be troubled with scab.

Ashbridge Lodge, Ill. G. A. C.

SORE MOUTH IN SHEEP.

Having derived so much practical knowledge from the COUNTRY GENTLEMAN, I cannot forbear to contribute my "mite" on the subject of sheep. Immediately after the cold week in January, my sheep were attacked with a black canker in the region of the angle of the mouth, internally, in the roughness there found, and extending externally half-way down the mouth. These abrasions scabbed over with a black scab, which, when picked off, showed proud flesh and a running sore. The sheep eat with difficulty, and fell away rapidly. I applied pot grease and sulphur, about one-half of each, and the sheep are all sound again.

C. S. POTTER.

A PROFITABLE COW.

Produce of cow owned by Mr. D. WEBB, Hamden, Conn., from April 1st to Dec. 31st, 1862:

Total weight of milk given in nine months,	8,998 lbs.
Butter made, 256 lbs., at 25 cents,	$64.00
Milk sold, 1,502 quarts, at 4 cents,	60.08
Produce, besides milk and cream used in family of four persons,	$124.08

Blistered Hands and Feet.—The speediest remedy is to light a tallow candle and let the melted tallow drop in cold water; then mix the tallow with strong spirits, and rub it thoroughly into the palms or soles; this is both a preventive and curative.

THE OSIER WILLOW.

Every farmer should have a patch of willow on his farm for his own use. Mr. S. Miller, in the Germantown Telegraph, thus describes the many ways in which it will be found useful:

"I have two rows, making a length of about five hundred feet, the plants six or eight inches apart. This affords me sufficient for tying trees into bundles in the nursery; tie up my vines, which are not a few; tie all my corn-fodder. It is a band that rats and mice will not eat, thereby saving much trouble and vexation when handling it in winter. To hold a split post together at top, if well bound, it will last for years; and even might be kept to tie oats some seasons when it is very short. Mine grow on common limestone soil, on a level, having nothing of the swamp order about it; was set with cuttings about two inches in length early in the spring, making a growth of two to three feet the first season.

"They should be cut early in the spring, left dry, and before using can be soaked for a day. When needed for baskets they are usually left until the leaf bursts out in the spring; but this is exhausting to the stock. Last season I had quite a number of baskets made of the finest kind; sold near one hundred pounds of peeled willows, in addition to all the tying on the place. From November till March we usually cut them just as we need them. Among some six varieties, the Purple is my favorite."

ON THE CULTURE OF THE POTATO.

Allow me to say a word in reference to the potato rot. Knowing that there has been a perfect mania in writing upon this subject, I will not attempt to put forward any new theory as to the cause or prevention of this disease, but simply give my experience as to the effect of wetness of season, deep and shallow planting, &c. Potatoes with us the past season, rotted badly, or more so than they have in many years, some losing almost their entire crop. The excess of rot over previous years, I think can be accounted for by the exceeding wetness of the season, or at least during the middle and latter portion. In the past ten years I do not remember a wet season but what potatoes were badly diseased, while, when we have had a moderately or very dry season, potatoes have been sound. This may be accounted for in many ways. I think that the over humidity causes the potato tops to rust something similar to grain, which, together with the wetness of the soil, is enough to cause the tubers to decay. I have always noticed where potatoes rotted at all, those that were deepest in the ground were the most diseased, and have frequently opened hills in which those near the surface were perfectly sound, while those deeper in the soil were all decayed. This is almost invariably the case. Now it is evident that the depth in which potatoes grow depends very much upon the depth in which the seed is planted. The results from deep planting are of course more injurious where the soil is cold and heavy. Potatoes seem to do better with deep planting in light sandy soils. Still with argillaceous soils, or any soil tending that way, I think it best simply to mark with a corn-marker, instead of plowing a deep furrow in which to drop the potatoes, as many do. For several years I have noticed that almost any variety of potatoes planted as soon as the frost is out of the ground, will produce a sound crop, although the yield will be much less than if planted later. For two years I have each season planted an acre of Silver Skins about the first of April. In both crops I did not find an unsound potato, while every other crop of this variety in this vicinity, planted later, rotted badly. The Prince Albert Potato is very much liked here, being freer from rot than any other late variety. The Garnet Chili is not very much liked, the objection to it being its coarse texture and rank taste. Much depends upon the soil in which they are planted, however—a dry warmish soil yielding an excellent potato of this variety. E. A. KING. *King's Ferry.*

SALT AS A FERTILIZER.

EDS. CO. GENT.—Asking your leave to reply to the questions of an INDIANA FARMER, (p. 128,) as to the effect of salt, I beg to say that a next farm neighbor of mine, the most accurate observer of everything connected with his crops that I know, who has been a heavy manurer, both from the barnyard and with phosphates, who learned, I believe, the use of salt from me, (I learned it from Mr. John Johnston, through the columns of the CO. GENT.,) recently said to me that of all the manures he has used, *salt* is the most specific in its beneficial effects.

Premising that the general soil hereabouts is mica, it may generally be said, as the result of many years' trial, that six bushels of salt per acre at seeding time is a preventive of rust; that it very much increases and strengthens the straw; that it adds to the weight of the grain; and that it matures the crop earlier. Especially is it beneficial in our hot, dry seasons to that crop so difficult to be reasonably successful with, the oat crop.

The comparative advantage from the use of salt to the grass crop, may probably depend very much on the character of the season. I have marked benefit from a heavy dressing, perhaps at the rate of ten bushels per acre, applied at mid-summer, to hillside old pasture ground, sheep pasture, which has not been broken up for sixteen years. H. I.

Philadelphia, Pa.

BRONCHITIS.

This affection, which seems to attack and prevail more among public speakers than others, has, in the malignant type, long baffled the skill of many of our physicians to cure.

The French remedy for diptheria and other diseases of the throat, tonsils, &c., including the croup, by frequent use of ice in small quantities, held in the mouth and taken internally, is no doubt a safe and valuable remedy. It restores and equalizes the regular action of the magnetic currents, which have been checked by an unwise and imprudent use and exposure of the membranes and glands of the mouth and throat, assisting nature to recuperate.

Those persons attacked or liable to bronchitis, by over caution often increase the difficulty and chances of being afflicted, as it is more often produced in consequence of using around the neck too much clothing at all seasons of the year. Large handkerchiefs, wrappers, and sometimes shawls, are worn as a protection to these complaints. It is not common to find a person afflicted with bronchitis, who only covers his neck with a light collar and slight neck-tie. In fact I never met a case of the kind among the out-door laborers, and those active persons who constantly expose their neck and breast to all the changes of weather. S. W. JEWETT.

Rio Bravo Ranch, El Tejon, Cal., Dec. 10, 1863.

ON THE USE OF SALT AS A MANURE.

The use of SALT as a manure, although not very extensively practiced in this country, has often been tried, apparently with good results, and we have had frequent inquiries as to the expediency of its application. So far as we were able to ascertain in England, the views of leading farmers there seemed to agree that it exerted a beneficial effect upon the wheat crop in checking somewhat its tendency to straw on land highly manured, in rendering the straw "brighter" and stiffer, and in consequently tending to save, if not actually adding to, the harvest of grain. On mangolds, moreover, it was largely applied, from the direct benefit which it was supposed to accomplish in increasing the crop.

At a meeting of the Royal Agricultural Society last month, Mr. LAWES read an interesting paper on this subject, the conclusions of which are not quite in accordance with received opinions nor with the general practice of English farmers. He detailed the course of an experiment on wheat, carried on through a series of years with the almost prodigal care and exactness which characterize all his investigations, and in which he is perhaps equalled by no other experimenter of the present day. This experiment proves, beyond question, that wheat *on his land*, received no benefit whatever from the application, either in grain or straw. He had always used 4 cwt. of salt per acre, with other fertilizers, upon his mangolds, in the regular course of farm practice, but was lead, by the failure to derive any benefit from it on wheat, to test with care the yield of this root with and without the salt; and, evidently somewhat to his own surprise, land without salt yielded 21 tons 2 cwt. of mangold roots per acre, while that to which 5 cwt. of salt per acre had been applied, produced only 20 tons 10 cwt. of roots, and that which had received 10 cwt. of salt per acre, produced only 18 tons of bulbs. As to tops, "where there was no salt the produce of tops was 7 tons 6 cwt., where the smaller quantity was applied it was 8 tons 5 cwt., and where the larger quantity of salt was used it was 7 tons 8 cwt. Therefore the result was, that where the smaller quantity of salt was used there was more top and less bulb, and where the larger quantity was used, less top and less bulb." Although he does not appear to claim this as a decisive experiment, nor that the wheat experiment on his farm would necessarily apply to all England, still he did not hesitate to assert without qualification the belief "that the large amount of money which is expended annually on salt as a manure throughout the British isles is *not returned in the produce*." Knowing that a commission on the part of the French government had been engaged in investigating the subject, he had also communicated with M. BARRAL, whose reply shows that that commission reported that *salt was of no value as a manure*. In this report M. Barral states that he agrees, in so far as regards the application of salt *alone*, but is uncertain whether this can be said of it if applied in connection with other fertilizing materials.

Such opinions as these naturally evoked considerable discussion, which might be read with interest here. Dr. VOELCKER "had come to the conclusion from what he had seen on a large scale in passing through different counties of England, and from his inquiries into the circumstances under which salt had been used, that in light and sandy soils salt was often, if not generally, used with very great benefit; while on heavy soils it was attended either with no advantage whatever or with decided disadvantage." On grass land he thought salt a most useful application when the object was to "check rank vegetation and sweeten the herbage." Other speakers gave experience strongly in favor of its use on wheat and mangolds.

Among our readers there are some we know, who entertain a very high opinion of Salt as a fertilizer, from actual trial, and a statement of the results of their experience would be of much use at this time. Hon. GEO. GEDDES of Onondaga, in his Survey of that county, remarks that it is there applied to some extent by farmers in the vicinity of salt works, and he may perhaps be able to supply information as to the particular crops and soils on which it appears to be a useful fertilizer, the quantity per acre, and so on. It is our impression that S. M. BROWN, Esq., of the same county, long advocated it as a most excellent manure, and we shall be glad if he will favor us with as full details as possible of his experience.

FARMING IN CONNECTICUT.

The Use of Swamp Muck as a Manure.

Connecticut is far from being one of the most fertile States in the Union. But what is lacking in soil is made up in the fertility of the minds of the inhabitants. The seeds of invention, enterprise, and indomitable perseverance originating in this little State, have been scattered abroad, and have taken root not only in every State and Territory of this country, but in every quarter of the habitable globe. Generally, the most enterprising of the inhabitants leave their homes to find farms in more fertile lands, or to engage in other industrial pursuits, while perhaps one in the family remains at home to fall heir to the homestead. Notwithstanding the great enterprise of this people in other departments of industry, they have not made the greatest improvement in Agriculture at home. Farming here is carried on much as it was by their forefathers, fifty or one hundred years ago. Notwithstanding the advantages of a home market for the products of the farm, it requires every possible improvement in agriculture to enable the farmer to compete successfully with those who have removed to the more fertile regions of the West. The soil and face of the country is such as to render it better adapted to dairying than to grain growing. While the soil lacks fertility, nature has furnished abundant material for its improvement. Numerous muck beds are to be met with in almost every county in the State. The soil, too, is of that character as to derive the greatest benefit from its application, and yet there are comparatively few of the farmers who avail themselves of these mines of wealth which lie just at their doors. In the southern tier of counties some of the farms have been considerably improved by the application of muck. To Prof. S. W. Johnson of Yale College, the the people are largely indebted for the encouragement he has given for the application of this material to the arable lands of the State, and yet there are thousands who have not learned its value to them as an article of manure. Dairy farming is peculiarly adapted to

the improvement of the soil. Farming can never be made permanently profitable, unless dairying or *stock-growing* constitutes one of its leading departments. However fertile lands may be, the constant cropping of hay and grain, unless some considerable portion of it is consumed upon the farm, the soil will rapidly deteriorate. It is the cities that drain the life-blood from the surrounding country. The virgin richness of the vast prairie regions of the West is now heavily taxed in the exportation of the millions of bushels of grain, and the cargoes of pork and beef, that go to feed the starving population of Europe. To check this evil it requires the most rigid economy in all manurial sub stances that can be made available upon the farm; and then the farming must be regarded as deficient and imperfect, unless stock-feeding constitutes one of its leading features. In supplying the daily consumption of the great city of New-York, millions of acres are taxed and drained of their virgin richness, while nothing is returned from the city to supply the waste, in the form of manure, except a mere fractional per cent. that is applied to the lands in the immediate vicinity, devoted to market gardening.

It need not be doubted that the profits of farming in Connecticut could be greatly increased if a more systematic course was adopted in making and applying manure. In the first place, a very general defect prevails among the farmers in the construction and management of their yards and stables. Their stables and barn-yards are often situated upon hill-sides, where the largest proportion of the most fertilizing substances of the manure are permitted to run off into the valleys and streams below. Besides, what is washed and wasted from the yards, the manure which is dropped in the stalls is usually thrown out of the windows, and remains in heaps under the dripping of the eaves until spring, when it is deprived of half of its most valuable enriching salts. To save this, and to increase the manure heap as it might be by the addition of three-fourths muck, would increase materially the year's profits. In the first place, the yards and stables should be arranged and situated with a view to making the most of the manure, with the least possible loss from the drainage of the liquid portions.*

The yard should be excavated in the centre, and so arranged as to receive all the urine from horse and cattle stalls, and what would be better, could it find its outlet *under cover*, where a supply of muck should always be at hand to absorb it. With the yards and sheds conveniently arranged for receiving fresh supplies of muck as often, and in such quantities as may be used to advantage, there would be no necessity for sending to the islands for guano, nor to the manufacturers and dealers in our own country for bone-dust and superphosphate or poudrette, at greater cost, and sometimes of questionable quality.

This subject has been suggested by a recent trip through a portion of Connecticut, and a few weeks' sojourn among the dairy farmers of Litchfield county. The surface here, like most portions of the State, is uneven and rocky; much of it so much so as not to yield to the plow, and is devoted to timber and pasturage, while the portions under cultivation produce hay, corn, rye, oats and buckwheat. The soil is susceptible of a good degree of permanent improvement. Throughout the portions visited, muck beds abound, and are generally easy of access by a large proportion of the farmers, and it only remains for them to learn from a few practical lessons the value of this material, which seems to have been providentially provided to meet just the demands that there exist for it. The soil which has been long cropped without adequate manuring, is just of that character as to be most benefitted by the application of this material, after it has passed through meliorating process already described. By a liberal application of this manure, it can hardly be doubted that the yield of hay, grain and potatoes may at least be doubled, while the labor of plowing, planting and harvesting will only be increased by the extra labor of handling the increased product.

While the foregoing has been written in reference to Connecticut, it is equally applicable to most portions of New England, as well as New York and other States. H. P. B.

Feeding Bees while in Winter Quarters.

If they are properly attended to in September, there will be but little occasion to feed in winter. When feeding is resorted to to prevent their starving, common sugar candy in the stick should be used, instead of liquid honey or sugar syrup. If bees get drabbled in cold weather with liquid sweet, they are very sure to be lost. Where the hive is well stocked with comb, it should be given them, a few sticks at a time, dropped between the combs when they are accessible, by removing the cap from the top of the hive, or should the common box or straw hive be in use, it should be inverted and the candy dropped between the comb, and be placed in a cold dark cellar. Should the bee-master have honey sealed over in the comb, that will do as well as candy by scratching the caps of the cells partially off with a fork. When movable comb hives, like Mr. Kibbe's of Vermont, are used, the feed can be introduced into one of the comb frames, and placed in the centre of the hive. If bees are kept in too warm a place, they will hum very loud and consume a large amount of honey; and should the hive be open, many of the bees will crawl out upon the floor or ground, and perish. R. GREGORY. *Chenango Co.*

* Since writing the foregoing, I chanced to meet with the following note in an old English work on Agriculture written one hundred years ago, which shows how highly this drainage was then estimated, that I am induced to copy it:

"The drainage of dunghills is the very strength and power of the dung; for water constantly filtering through stable-yard dung, certainly robs it of the mucilage and saline particles, with which it greatly abounds when newly made; and especially such dung as has lain a considerable time in the stable, and imbibed a large portion of the urine of the horses. The saline particles contained in new made dung, are increased by its fermentation, therefore the first extract obtained from the dung, after it has undergone its fermentation, may be justly considered as the *cream or essence of the manure.*

"In most farm-yards this liquor is generally permitted to run to waste, which is much to be regretted, and may in reality be deemed a public loss.

"The farmer would find his labor well rewarded by carrying this liquor to the most convenient part of his farm, which might be easily done by the help of a water-cart.

"Manure is an article of such vast importance in husbandry, that the farmer ought to pay the greatest atention possible to the enlargement of the stock of dung. It is to be wished that it would become a practice to straw the farm, fold, and stable yards, with leaves of trees, rotten tan, noxious weeds, sawdust, moory earth, and such like materials. These should be introduced before the dunghill is formed, and should be laid to a considerable thickness in the lower part of the yard, as they would then receive and imbibe the riches that drain from the dung above."

If this method of proceeding were introduced, many farmers would have an opportunity of collecting materials, whereby they might increase their stock of dung to more than twice its usual quantity.

Although soils of different qualities admit of improvement by various modes of practice, yet *without the aid of manure, the farmer would find his utmost exertions of but little value.*

Profits of Grain-Raising in Wisconsin.

Mr. LEWIS SAWYER of Rolling Prairie, Dodge Co., one of our oldest settlers, gives as the results of his experience, the following statistics of the cost and profits per acre, resulting from the raising of the different cereals. The statements are based upon his average crops, and the average prices obtained for them:

ONE ACRE OF WHEAT.—CR.

By 20 bushels, at $1 per bushel,	$20.00

CONTRA.—DR.

To two bushels seed wheat,	$2.00	
half day of man plowing,	.25	
Harrowing, cultivating, and sowing,	.18	
Reaping,	.10	
Binding and setting up,	.50	
Stacking,	.60	
Cost of threshing, at 8 cents,	1.60	
Two days board, at $1.25,	.36	
Wear and tear of tools,	.47	
Average taxes as per last two years,	.33	
Seven per cent. interest on capital,	2.81	
Marketing,	.10	
Oats for team,	.70	
		10.00
Net profit per acre,		$10.00

ONE ACRE OF OATS.—CR.

By 70 bushels, at 30 cents,	$21.00

CONTRA.—DR.

To three bushels seed oats,	.90	
Plowing, harrowing, sowing, and harvesting, (the same estimate as for wheat,)	1.63	
Cost of threshing, at 4 cents,	2.80	
Board, wear and tear, taxes, interest, marketing, and feed for team, (the same as for wheat,)	4.77	
		10.10
Net profit per acre,		$10.90

ONE ACRE OF BABLEY.—CR.

By 40 bushels, at 75 cents,	$30.00

CONTRA.—DR.

To three bushels seed, at 75 cents,	$2.25	
Cost of threshing, at 6 cents,	2.40	
Other items, the same as for wheat,	6.40	
		11.05
Net profit per acre,		$18.95

ONE ACRE OF CORN.—CR.

By 120 bushels ears corn, at 20 cents,	$24.00

CONTRA.—DR.

To half day of man plowing,	.25	
Harrowing and marking,	.12	
Five quarts seed, at $1 per bushel,	.16	
Half day to planting,	.25	
Cultivating three times,	.38	
Hoeing once, (two days,)	1.00	
Cutting and setting up,	.33	
Four days husking,	2.00	
Eight days board, at $1.25,	1.41	
Oats for team,	.45	
Shrinkage 20 per cent., (estimated,)	4.80	
Interest, taxes, and wear and tear of tools,	3.61	
		14.76
Net profit per acre,		$9.24

REMARKS.—In the foregoing estimates, no account is made of team work, as Mr. Sawyer thinks that the growth and increase of value in young teams, (such as he uses) are fully equal to the cost of keeping, except grain, which is accounted for in his statements. He makes use of both cattle and horses on his farm. He hires men by the season sufficient to perform all his labors on his farm, and pays no extra prices for men in harvest or any other time, as many farmers do. He holds, by a judicious division of crops—planting enough to keep men busy when not engaged with other crops—that help enough can be profitably kept through the season to carry on all the operations of the farm, including harvesting and threshing. Hired labor here, by the season, usually costs about $13 per month, or 50 cents per day, exclusive of board and washing. No estimate is made for drawing manure, as the value of the straw and fodder is considered an offset. He finds by doing the work in season and thoroughly that cultivating corn three times, with one hoeing at the second cultivation, leaves the crop clean of weeds, and the soil in good condition. By his system of management and division of labor he thinks that one man can do all the work on forty acres. Says that farmers would find the wear and tear and expense of tools less if they would only purchase the best of each kind, even at an enhanced price, and then keep them well painted, and under cover when not in use. Mr. Sawyer is located within one-half mile of the depot, on the Milwaukee and St. Paul Railroad; consequently has a market near his own door.

The average of farms on rolling prairies, with the ordinary improvements of the country, can probably be bought at present for about $35 per acre.

The cost of raising wheat, according to Mr. S.'s statement, is 50 cents per bushel. Oats nearly 15 cents per bushel. Barley nearly 28 cents per bushel. Corn, after deducting 20 per cent. for shrinkage, 16 cents per bushel of ears. Whatever they sell for over these prices can be placed to the profit account of the producer.

Mr. Sawyer's farm consists of over 300 acres, a part of which is rented to tenants. L. L. FAIRCHILD.

THE BOUGHTON WHEAT.

MESSRS. EDITORS—In looking over the column of correspondence in the COUNTRY GENTLEMAN of January 21, (page 52), my attention was attracted to a notice by one of your well known correspondents, of the Boughton wheat.

As this wheat is of quite recent origin, and but little known, I propose to give my experience with it, and my opinion of it. I procured in 1860, of my commission merchant in Richmond, Va., one and three-quarter bushels, which I sowed on one and a half acres of land, using more care, however, than is usual among farmers in this section, in preparing the land and sowing the seed. Having paid the exorbitant price, as I then thought, of $4.25 per bushel, I determined to give it a *fair* trial. The land I selected was a moderately fertile spot, being a mixture of sand and clay, and such, as I thought, would have yielded one of our average crops of wheat, about twenty bushels per acre. But there had been no manure of any kind used in the preparation of the soil. A crop of oats had been taken off the land the same year—preceding which it had been two years in potatoes, and previous to that a meadow. The season here was about a fair average one. The wheat was cut on 5th June, having stood fully a week in order to become fully matured for seed. The exact yield I do not know, but estimating as nearly as possible the loss at ten bushels, (a low estimate,) the amount cut would have been fifty-two bushels. I secured forty-two bushels. That season I had in a crop of three hundred acres of other kinds of wheat, and some of it much better land, yet I am convinced I could not have selected one and a half acres in the whole breadth that would have yielded as much by fifty per cent. This wheat is earlier by two weeks than any other wheat grown in this valley, and from the fact of its extreme earliness, it escapes the diseases incident to late wheat, and particularly that most dreaded of all the enemies to wheat in this section—the midge.

I will now only add that after the result of my experiment became known, I was beseiged with applications for some of this wheat for seed, and found no difficulty, (excepting in deciding as to precedence,) in selling for two years all I wished, at double price. I have sowed my entire farm down in grass, and have suspended all other operations till this "cruel war is over;" consequently I have none to sell, but it is pretty generally diffused through this valley this season, and in another year I predict will be the only variety sown. It is altogether a remarkable wheat.

Kanawha, Va. B. TOMPKINS.

THE WIRE WORM.

MESSRS. EDITORS—In the COUNTRY GENTLEMAN of Jan. 28, a correspondent from Ohio says, if you or any of your correspondents can inform him how to destroy *wire-worms*, it will confer a great favor on him. I presume that hundreds of farmers in this country would be glad to obtain the same information; I for one, would willingly pay a large sum to be informed how I could rid my farm of this troublesome pest, for I have lost more in the injury and destruction of my crops, from the depredations of this worm, than from all other insects, birds, and beasts combined, and after years of fruitless effort and experiment to destroy them, or to prevent their ravages on my crops, I have come to the conclusion that for the present I must bear with the loss which I annually suffer from their ravages, as all the different methods which I have tried to guard myself against them, have thus far proved of no avail.

At present I do not think that there is anything which can be applied to the land sufficiently powerful to destroy them, that will not also kill all kinds of vegetation. I have used ashes, lime, and salt, in the hill and around the plants of corn, potatoes, and turnips, without affecting them in the least. They seem to grow, increase, and destroy the crops equally well whether horse, cow, sheep, hog, or hen manure, the contents of the privy, or composts of different kinds were used; for I have used all of these manures, and have applied them in the hill, spread broadcast and plowed them in, spread it on the land after it was plowed, and harrowed it in, and top-dressed with the manure. I have also applied to my cultivated crops, gypsum, soot, and superphosphate of lime, without interfering in the least with their operations.

I agree with you, Messrs. Editors, in saying, that I have found nothing better than a good application of fresh yard manure to the land, to counteract the operations of the wire-worm; not because I think it injures the worm in the least, but by highly manuring the land the crops are forced to a quicker and stronger growth, and are thereby better able to withstand the attacks of the worm than plants of feeble and slow growth, such as are generally found on poor soils. I have tried plowing my land late in the fall, and early and late in the spring, but do not think that the time in which the land is plowed makes any differance with the worm. Of the different crops of grain which I raise, oats are injured the most, and barley the least by the worm; the potatoes the most, and turnips the least of my root crops. Whether there is anything about the barley or turnip that is repugnant to worms, I do not know, but I am inclined to think that it is owing more to the time at which these crops are sown, and the quickness with which they make their growth, than anything else.

With us the wire-worm appears to work on the crops the most in the fore part of the season, or before the ground gets thoroughly warmed, and those crops which are put in the earliest, as a general rule, suffer the most—such as the oat, potato, and corn crops. After the season is more advanced, and the ground gets warm, the worm does not appear to work on the crops as it does earlier in the season, and such crops as the barley and turnip, which grow fast and mature early, suffer comparatively little from the ravages of the worms.

The theory which I have deduced from my observations on this subject, is that the wire-worm works on the crops the most in the fore part of the season, or when the ground is cold, and less after the ground has become warm, or later in the season; and that if by highly manuring the land with fresh manures, which warm and quicken the land, and force the crops to make a vigorous growth, and by raising such crops or such varieties of crops as will mature the quickest, we may in a measure escape the depredations of this troublesome worm. In conclusion I would say, let us have all the information we can get on this subject, from all of those who can give it. C. T. ALVORD.

Wilmington, Feb., 1864.

THE DIFFERENT CIDER MILLS.

Having read the inquiries of "Ruricolist," page 32 of CO. GENT., and also the reply of S. Edwards Todd, on page 64, I am induced to give a short account of my cider-making:

It is now over fifty years since I commenced making cider. The nut or reed mill was then in general use. Soon, however, what was termed the cog-mill was introduced, which would grind much faster than the former, after which, the one recommended by Mr. Todd. I have one of those with the spring door, as described by him, but have laid it aside.

One year ago I had occasion to build a new mill entire.

For my scratcher, I took from a seasoned cherry log a block about sixteen inches long—turned it down to fourteen inches—marked off eight inches in the centre, and turned down the ends to ten inches.

I then set in cider mill tacks in rows 2½ inches apart, diagonally, across the eight inch centre. My scratcher, as I term it, was then complete.

To guard against injury from stones, I have a piece of two inch hard wood plank placed in the frame on which the scratcher is hung, so as to come up level with the centre of the scratcher, and so arranged that it can be wedged up to touch the points of the tacks.

My hopper comes down perpendicularly 2½ inches in front of the scratcher.

Stones or hard substances are at once forced into this space, which is filled with apples and pomace. We have taken out stones from ½ to 2 inches in diameter, and no material damage has yet been done by them.

We grind 100 bushels per hour with two-horse power. "Ruricolist" can grind 200 bushels per hour as he wishes to do, with half the power he mentions, by making his scratcher 16 to 20 inches long. SARDIS WARD.

Holland Patent, N. Y.

Squeaking boots or shoes are a great annoyance, especially in entering a sick room, or a church after the services have commenced; the remedy is to boil linseed oil and saturate the soles with the same.

DOMESTIC GUANO AND COMPOSTS.

Your correspondent, E. R. TOWLE'S failure in the use of domestic guano, I think, is explained. He says —"the fault may have been his." I think it was, as he could not have done much worse with hen manure than to use leached ashes as an absorbent. He would not need to call a learned chemist; if his sense of smell was good, he would know ammonia was being expelled to the four winds as fast as possible. As for the plaster, which he says he should have used if it had been at hand, it will hardly be safe for an amateur to express an opinion after the elaborate discussions on that question in this paper. If he will use a different absorbent, different results may be expected. Caustic lime and the fixed alkalies should never be introduced into any manure heap, consisting chiefly of animal matters, unless peat or swamp muck is used to cover the heap and absorb the disengaged ammonia. In the manufacture of poudrette, charred peat is used as an absorbent. Charcoal dust is also highly antiseptic and absorbs large quantities of ammonia. If the peat or coal dust cannot be had, pulverized clay may be used; it should be thrown out in the fall, and will be fit for use the coming spring.

A good manure may be mode in this way: I usually fill four or five barrels with old dry peat, and pour on the urine from the house through the year. The leakings from the barrels will be found to be pure water, the peat having absorbed all the salts from the urine. About the first of March I usually empty the contents of the barrels on the barn floor, or some place under cover, and add more muck, and also some material that will heat the pile. I use fish guano; horse manure will answer the same purpose. Aster remaining a month, I shovel over the heap, and it is fit for use.

I put all concentrated fertilizers through the process of composting, as they need decomposing before they become plant food.

Concentrated manures often prove inefficient in dry seasons, probably owing to their having no power to retain moisture. Hence, the importance of composting with vegetable mould, which has strong absorbing powers. If such manures are used in a caustic state without composting, and applied in the hill, and come in contact with the seed or roots of the young plant, they are likely to do about as much hurt as good, as many a one can testify. I usually add to the heap before composting, the muck from a cemented vault under my stable floor. A strong manure may be saved in this way, which is often wasted.

Prof. Stockhardt, in his Field Lectures, estimates the value of the urine of a cow for a year at about the same as the solid excrements for the same time. If a farmer has a will, he may make a manure to start his crops, and many a farmer pays out his money for concentrated manures, and lets a greater value go to waste that might be saved with very little trouble. Some will say peat or muck cannot be had. If not, probably clay can be had anywhere, which will answer the purpose. I should prefer it to an equal bulk of plaster for this purpose. LYMAN BASSETT.

North Haven, Conn.

Why is an author the most peculiar of animals? Because his tale comes out of his head.

HORTICULTURAL NOTES.

DWARF PEARS.—President Cabot, in his Annual Report to the Massachusetts Horticultural Society, recommends the dwarf form of the pear as the best mode of cultivating it. After alluding to the fact that some varieties are superior in quality when grown on the quince, and also to the long continued and successful culture of dwarfs in France and Belgium, he states that on quince stocks the trees never attain large size, and if properly treated, can be kept in a very compact form, and can thus be set nearer together and protect each other from high winds. The greater number of trees which may be grown on an acre will yield as much fruit as from the fewer standards; they will come much sooner into bearing; will be less liable to be blown off; the trees are more readily pruned, and the fruit more easily thinned and gathered. The only drawbacks he mentions are the liability of the quince to the attacks of the borer, which is entirely obviated by setting the place of union two inches below the surface of the ground; and the reputed short life of the tree, which, however, when properly managed, extends to a quarter or half a century. To these we must add that unless the plantation is properly manured and continually cultivated, none of these advantages can be secured, and the result will be a failure.

THE EDMONDS PEAR.—P. Barry describes in the Magazine of Horticulture, a new variety under this name, which originated near Rochester. It is described as a rich melting pear, superior to the Bartlett; large, roundish, obovate; stalk two inches long, enlarged at the base, cavity shallow, calyx large, basin deep, skin bright yellow, often marbled with red towards the sun, flesh melting, sweet and perfumed. Season middle of September to middle of October. Tree a strong grower, succeeding well on the quince, and rivaling the Louise Bonne de Jersey. Productiveness not mentioned. The editor of the Magazine thinks this will prove as valuable as the Onondaga, but if not better in quality, it can never become a general favorite.

GOOD AMERICAN PEARS.—Hovey's Magazine names the following new varieties as the results of the last dozen years: The Sheldon, Swan's Orange, (Onondaga,) Dana's Hovey, Augustus Dana, Excelsior, Moore's Pound, Kingsessing, Clapp's Favorite, and the Edmonds.

NORTHERN SPY IN ENGLAND.—Dr. Lindley, who examined some specimens of this apple grown in England on a small tree in an orchard-house, thus speaks of its quality: "Finer flavored specimens we never tasted of this, the most delicious of United States apples, as well as one of the very finest of table apples. We prefer it to the best Newtown Pippin."

KILLING RABBITS–A correspondent of the same paper says he had practiced for some years the scattering of corn among his fruit trees for rabbits to feed upon to prevent their destroying his trees, but becoming tired of feeding other men's rabbits, he purchased a bottle of strychnine, pulverized it, and made into a thin paste or liquid, and brushed it over a dozen of ears of corn, which he distributed among his trees. The next morning, he says, "I have just been out gathering fifteen dead rabbits, and I am confident that others crawled off into brush heaps and were not found." It may be proper for us to add that the existence of brush heaps in orchards or gardens through winter does not indicate the neatest management, and will account, in part for the presence of depredators.

STAKING VIRGINIA FENCE.

EDS. CO. GENT. AND CULTIVATOR—For some years I have adopted a different way of staking Virginia fence from any I have ever seen elsewhere, which we think is a decided improvement over the various ways that have been published in agricultural papers from time to time. To commence, I lay the "worm" or bottom rail with a substantial blocking under each corner; then with the crowbar make two holes, one on either side of each corner; then on the side opposite where the rails are piled we insert a stake and drive it a little, that it may stand up straight; then build the fence up to its desired height, say about 7 rails high, then put in the other stake; then take wire about as large as a small pipe stem, known to the trade as "brazier's rods," cut them into pieces, some 18, some 20, 22, and 24 inches, as the rods are for length; then at the blacksmith's shop, or at your own shop, which is far preferable, bend them into an oval form; then lock them together.  Then to put them on to the stakes. Provide yourself with a bench about 3 feet square, 2¼ or 3 feet high, a small beetle, and a basket with the wire bands, and a hammer. Move the bench and tools to the corner where you want to operate, select a band from the basket according to the distance the stakes are apart; then pull the stakes together, slip on the band over the tops of the stakes, and with the hammer drive it down a little to hold them together; then with your beetle drive the stakes down till the wire band snugs the top rail, or nearly so. This secures the top rail so that no unruly ox or horse can throw it off nor winds move it from its foundation. The stakes should be 8 feet long, good size, and rounded a little about two feet of the upper end, that the band may slip down the more easily. Then there is this advantage over other modes of staking Virginia fence. If by small ends of some rails the corner should happen to be lower than desirable, raise up the rail above the small rail, and put under a stone or block of wood as thick as necessary, and you can fetch the fence up to the required height, without additional rails; and it will be necessary in the spring when the frost goes out, that the stakes should be driven back to their places again. This fence, when well built, is not only substantial but ornamental, and the stakes will last much longer than when put in sawbuck fashion. L. P. L.

Berkshire Hill, Tioga Co., N. Y.

HOW I WINTER MY COWS.

MESSRS. EDITORS—I wish to say a word in regard to the management of dairy cows. I have a small farm—keep from ten to fifteen cows. The way I manage is follows: Keep them in a warm stable, card them every day, litter the floor well, feed five times a day, with plenty of good water—keep them all buttoned, and keep them from all storms. In this way I keep my cows. They are fat, some of them weighing 1,200 lbs. A part of them a mixture of Durham, and they have given 60 lbs. of milk per day. I do not feed any grain. If any one can inform me of a better and cheaper way, I would like to hear through the COUNTRY GENTLEMAN. This is the winter management. Salt as often as in summer time.

Cortland Co., March, 1864. SYLVESTER R. WOODS.

WASH FOR BUILDINGS.

At s recent meeting of the New-York Farmers' Club, Solon Robinson recommended a durable wash as follows: Slake one bushel of good lime and make it into whitewash by adding 40 gallons of water—also add 20 pounds of Spanish whiting, 17 pounds of salt, and 12 pounds of sugar. He stated that the whiting is for coating the surface, the salt making it penetrate the wood, and the sugar to render it adhesive. This is doubtless a good wash for interiors, but we question if it is so well adapted for out-door work, or where constantly exposed to rains and weather, as some other applications. After trying many, we have found the following the best: Mix three pecks of good fresh water lime with one peck of very fine and clean sand and half a peck of salt. Add water enough to make a good wash, and apply with a brush, stirring it frequently. A single coat will last several years, especially if applied to rough boards. There is no kind of wash, however, and probably never can be, that is equal in durability and perfection to oil paint, through which water can never pass, while all the different washes are soaked through by every long rain. The lime, however, penetrating the pores of the wood, greatly increases its durability, and if occasionally repeated when needed, is scarcely inferior in this respect to oil paint.

CULTURE OF ROOT CROPS

EDITORS OF THE CULTIVATOR—I grow a few roots every year, (my crop last year being near 1,000 bushels,) and have been very much troubled with the hoeing of them until last summer, when I cut 2 inches of my hoes, making one for turnips, 8 inches long by 2 inches deep, and one for carrots, a small garden hoe, 4 inches long by 2 inches deep, so that I could leave my turnips 10 inches apart and my carrots 4 or 5 inches—the drills 22 inches distant—then going with the cultivator between, shaving all the weeds off close to the plants, so that I had nothing but the drills to hoe and thin. When the plants got about two inches high I went between the rows, and with a steady pull cut up the plants the length of the hoe, leaving a few; then going over again and pulling all but the best one, so I had nothing to do but hoe and keep the weeds down, and there it is that I find my hoes that I have altered so useful, especially the carrot hoe; before, with the clumsy big hoe, I was often cutting a plant where I should not, then bewailing my bad luck. I have been to a few store-keepers in Milwaukee, wishing them to order six hoes for me of the size above described when they send their orders, but they say the makers would not alter from their old pattern as they are the best. Would you be so kind as to say whether there are any made of the size stated that you know of?

I had a good crop, the carrots almost touching one another, and a great length, and not a weed to see among them. W. M.

Milwaukee Co., Wis.

To Repel Crows.—John Ayers of Columbus, Mich., states through the Genesee Farmer that he has found the following remedy an excellent one to prevent crows from pulling corn. Remove the whites from half a dozen eggs, and insert a little strychnine; place these around the cornfield at crow time. Hang up the dead crows as fast as they are found. Three have been found lying beside one egg.

The Best Way and Time to Sell Pork.

MESSRS. EDITORS—Pork is getting to be quite an important product of Western New York, and the best way and time to sell it are questions well worthy of consideration. As the business is now conducted, there are three ways or times of selling fat hogs. First, by live weight in Nov.; second, dressed weight in Dec., and third, also dressed, in Jan. These divisions seem to grow out of the business as now carried on, in this way. Those that sell in Nov. aim to get their hogs in tolerable condition, say about half fatted by that time, which they mainly do by feeding cheap feed, such as apples, pumpkins, poor corn, peas fed in the straw, &c., and claim that it is more profitable to do so and then sell, than it is to feed them on good corn, or other marketable grain from one to two months longer, though by doing so they may get a considerable advance in price. They generally sell for a low price, usually for about half at live weight that dressed hogs sell for in Jan. In this way a considerable part in some years, more than half of the hogs in this vicinity are disposed of; but as I have long thought, and now expect to show, at a very considerable loss.

The second class or those sold in Dec., are generally those that were not fat enough to sell in Nov., but still mainly owned by farmers that seem to be governed by the same opinions as those that sell in that month. That is, they aim to get their hogs off their hands as soon as they will sell. These hogs are generally better than those sold early, but not as good as those sold from four to six weeks later. For several reasons, as not being first quality, and not generally having steady cold weather to make it entirely safe to hold and send to distant markets pork in the hog, and usually on account of a more or less overstocked market, both at home and on the seaboard, they will generally average about a dollar a hundred less in Dec. than in January.

The third class generally have good, heavy, well fatted hogs, which by keeping until the principal rush of the more common kinds are out of the way, and January weather makes it safe to handle, or hold dressed hogs, are almost sure to bring a good price. I have long been convinced that the last was the best course to pursue, though well aware that a large majority of farmers thought differently—but have never had occasion to demonstrate it so completely as the present winter. On the 7th of January last, being in Medina, a considerable market village in this county, I overheard a farmer that had brought in a load of pork, say he had been offered $9 for it; but though that was a good price, he thought he had done better with some that he sold about the first of December for $7.32. To this I answered, that he could not have fed to very good advantage, or that his experience was very different from what mine had always been. To this, after some conversation, he replied that we could easily test the matter, and gave me the following data. He said he had eight hogs that averaged 325 lbs. each; that since the others were sold they had been fed 55½ bushels of corn, and had gained 600 lbs. or 75 lbs. each. This shows they would have dressed 250 each when the others were sold, which at $7.32, the price the first lot brought, would make them come to $146.40. When they were sold they weighed 325 lbs., which at $9, makes them come to $234, a gain of $87.60, which after taking out $55.50 to pay for the corn at $1 a bushel, leaves $32.10 clear profit, or it pays $1.58 per bushel for the corn. This was quite an intelligent appearing farmer, and gave the data with every appearance of believing, as he stated, that he had lost instead of gained on his hogs.

On subsequently relating this account to a neighboring farmer, he gave me some of his experience in selling hogs. In the fore part of Nov., 1862, he sold five hogs that weighed 300 pounds live weight on an average, for three cents a pound, making them come to $9 each, and $45 for the five. He kept one that was smaller and not fat enough to go with the rest, and fatted and sold it in Jan. for $6 per hundred dressed. This one weighed 350 pounds, and he says he has no doubt that, judging by this hog and his hogs other years, that had he kept the others, and fatted and killed them at the same time, they would have weighed about 400 pounds each. Now had he kept these hogs and made them weigh 400 pounds, and sold at $6, the price the one sold for, they would have come to $120, which would have given him $75 for feeding, To do this he would have had to feed some 70 days, which at 6 quarts a day, the average fed in the first account, would amount to a little over 13 bushels to the hog, or some 65 bushels, which at 65 cents a bush., the then highest price, would amount to $42.25, leaving a clear profit of $32.75, or paying $1.15 a bushel for the corn. But he says that 6 quarts is more than his hogs average, and that 5 quarts is much nearer the mark, which agrees with my experience in feeding. Allowing them 5 quarts on an average, the account will show a profit of $39.25, or pay $1.36 a bushel for the corn. Or, supposing he puts their weight too high, that they would only have averaged 350 pounds, it will only make $15 difference, still leaving a good profit.

This season the same farmer fatted and sold six hogs. Early in Nov. he was offered $80 for them, which was calculated to be 4½ cents a pound, live weight, which was all they would bring, and the average price for live hogs the past season. He kept, fatted, killed and sold them for $9.65 a hundred, or $214 for the six, on the 12th of Jan., leaving a balance of $134, to pay for feeding. He fed about the same length of time as last year, so if his hogs eat 6 quarts a day, he fed 78 bush., which at a dollar a bushel, the price of corn now, makes $78, which taken from $134, leaves $56 profit, or it pays $1.72 a bushel for the corn. Or if he fed 5 quarts a day, which is very near the amount fed, according to his statements, then he fed 66 bushels, worth $66, leaving $68 profit, or paying over $2 per bushel for the corn.

I have also made similar calculations in relation to four hogs that averaged over 300 pounds, and sold for 9¼ cents the present month; and fine hogs, that averaged over 360 pounds, sold a year ago for 6¼ ceuts by myself, with very nearly the same results—the principle difference being that I realised a larger gain between the first of Dec. and the 13th of Jan., when I killed, than is given in the first account; while the profit over what they probably would have sold for on foot, may be a little less than in the other two instances.

But in making these calculations, I have put the price—as was also done in the first account—at what

fat hogs sold for on the first of Dec., which is at least half a dollar too high, as mine were not much if any more than half-fatted at that time. Now allowing fifty cents a hundred as the difference in price between hogs well fatted and those half fatted, and allowing for the gain in weight until they are well fattened, will seldom fail to pay well with good hogs; though the price for the same quality may remain stationary. For instance, suppose a hog that will weigh 225 lbs. will sell for 4½ cents, but by keeping him forty days, he will weigh 300 lbs. and sell for 5 cents, then there will be a gain of nearly $5, which if fed 6 bushels of corn,—which is 5 quarts a day—at 50 cents a bushel, a fair corresponding price, there will then be a profit of some $2, besides loose fat and manure, which ought to be a dollar more, and which altogether would make nearly a dollar a bushel for the corn. Or should it even take 50 days, and 8 bushels of corn, there will yet be a profit of nearly $2. But when to this is added, that here in Western New-York the price of pork will average at least a dollar higher in the fore part of January than it is first of December—the difference sometimes, as in the present winter, being more than $2, and the difference between selling on foot in Nov. and dressed in Jan. being still greater, as I have shown —I say when all of this is considered, there certainly cannot be much chance to doubt as to when is the best time to sell pork.

I am aware that it may be objected that I have not given exact weights in every instance, so the exact gains and profits cannot be determined. True, I have not done so; but I claim that I have come sufficiently near to prove beyond any reasonable doubt, that in this section at least, it not only pays to keep hogs until steady cold weather makes it safe to buy, and hold or ship dressed hogs by railroad, and about the maximum price is reached—which is seldom before January, but that feeding from the first of December until into January pays a handsome profit. This I consider to be the more important, for the reason that the contrary opinion generally prevails; and that in consequence of this opinion, the principal part of the hogs are either sold on foot in November, or from half to two-thirds fattened in December, at a loss of a good many thousand dollars in this county alone, to say nothing about the rest of the country.

But my estimates are not as wild as they might be. Where a good many hogs are sold every week, and buyers are often around looking at hogs, as is the case here, data can be and generally are obtained, that will enable any man that is a tolerable judge, to come pretty close. And I am confident I have not given the weight of my hogs on the first of December too low, or the gain more than I realized, while I know I put them higher at that time than any buyer or other person estimated them. F.

Orleans Co., N. Y., Jan. 1864.

How my Boys Break Colts to the Halter.

Take three-eighths cotton cord, (a piece of bed cord will do,) make a tight loop, just large enough to pass around the lower jaw, and pass the cord over the neck, bringing the cord down through the loop. Then, standing by the animal's side, give him a sudden check Then pass on the other side and do the same thing. This manæuvering for a short time will learn him to turn without a check. Then stand in front, and with a gentle pull the colt soon follows. If he does not follow, give the colt a few more checks, and in a few minutes the colt follows with a slack rope. C. G. TAYLOR.

OUR LITTLE DAIRY.

MESSRS. EDITORS—As it is not a settled question before the agricultural community, which is the best breeds for the dairy, the size of animals, and the manner of feeding, I will give the description of mine, and the manner of feeding and the produce of the same for the last eleven months. The dairy is composed of ten cows, from four to eight years of age, and two heifers that had suckled their calves for a year previous; all are pure blood and high grade Durham, fleshy and in high condition throughout the year—would make, if slaughtered, from 8½ to 9½ hundred pounds of beef, hide, and tallow—their feed, from the time in the spring when pasture has become good until it fails in the fall, is grass only; then root tops, cabbages, &c.—a feed daily; then daily feed of roots from a peck to half a bushel each as long as they remain in milk, with a plenty of hay fed four times a day through foddering season. The most of the hay is not of the first quality, (for I keep Merinos.) When they are near coming in, they are fed roots again, with the addition of two to four quarts of corn and oat-meal daily, until the pastures give a full bite in the spring—corn and oats in equal quantities ground together without the cob. Raised eight calves fed on new milk until four to six weeks old; then skim until three to three and a half months old. I estimate that we used the milk of the two farrow heifers for family use; they gave but a small quantity and became dry early, and that the butter used in the family is good 500 lbs., as the family, including farm hands, is large. The summer pasture is ordinary, but not over-fed; but the after feed from some 90 acres of meadow, divided into many lots, is extra good, and mostly fed by the cows. The calves when weaned, would have sold for $12.50 each, without extra price for blood.

The cheese sold early, for 10 cents per lb.; the butter before the 1st of Oct., sold from 17 to 22 cts.; all after Oct. 1st, being more than half the whole, for 28 cts., making an average price of 25 cts. per lb. We made no skim-milk cheese. The whey and milk for swine did certainly make 100 lbs. pork, worth at killing time $8 per hundred—one six weeks fattened veal $7, and one calf deaconed, $1.50; and the account will stand:

1,015 lbs butter sold at 25 cents,	$253.75
500 lbs. used in family and on hand, 25 cts.,	125.00
2,911 lbs. cheese sold at 10 cts.,	291.10
256 do. used and on hand, 10 cts.,	25.60
8 calves at weaning, $12.50 each,	100.00
1 veal, $7—one deacon, $1.50,	8.50
Slop from 10 cows, at $8 each,	80.00
Total produce of 10 cows,	$883.95

Produce per cow, $88.39½.

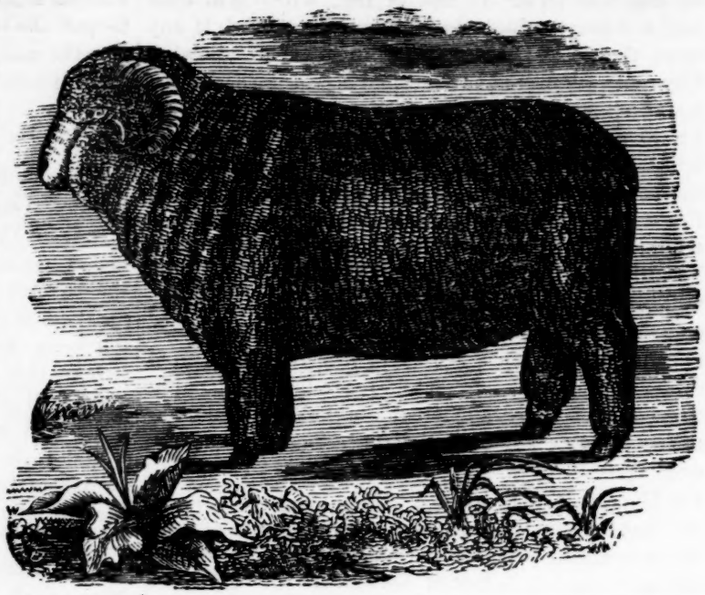
Rutland, Vt., Feb. 1, 1864. H. W. LESTER

Tomato Soup—Scald and peel good ripe tomatoes; stew them one hour, and strain through a coarse sieve; stir in a very little wheaten flour to give it body, and brown sugar in the proportion of a teaspoonful to a quart of soup; then boil five minutes. This is one of the most agreeable and wholesome of the "fancy dishes." Okra, or gumbo, is a good addition to this and many other kinds of soup.

[For the Country Gentleman and Cultivator.]

Improvements in Sheep.

MESSRS. TUCKER—I herewith send you an illustration of a very nice sheep, now owned by Messrs. Isaac Bower and Pierce, North Chili, Monroe Co., N. Y., with an account of the weight of some of his fleeces, by which your readers will see what good improvements in sheep are now being made in many parts of our State.



The breed of this sheep is scientifically denominated "The Infantado Stock." When the buck, which is represented by this picture, was one year old, his fleece weighed 17½ pounds of magnificent wool. His next fleece, which was a growth of only 10 months and 20 days, weighed 21 lbs. The cut represents the animal as he appeared when he was one year and nine months old. On the 1st of February, 1864, his gross weight was one hundred and fifty-six pounds.

It will be perceived that this animal is represented as being well covered with thick wool on the legs, cheeks, forehead, and belly; and the great weight of the fleeces of this kind of sheep does not consist in the great amount of yolk, or, as it is too commonly called, "grease," but in the great length and thickness of the wool that grows on every part of the animal.

The illustration gives a very fair representation of the form and symmetry of the buck. And it is a source of great interest to every farmer who raises sheep, to know that efforts to improve the carcass, as well as the fleeces of sheep, have been crowned with excellent results, which has been, and now is, and will continue to be a source of great profit to the farmers of our country.

Dr. H. S. Randall, in his Practical Shepherd, recently issued, has given a bit of history concerning this breed of excellent sheep, in which he states that a certain ram yielded a fleece of excellent wool which which weighed 27 pounds, which was the growth of a single year.

I find in my rambles through our State, that farmers are introducing such sheep as this into their flocks, and in many instances are endeavoring to dispose of every other kind of sheep but this. And they are just beginning to find out that it does not cost as much, per head, to keep such a sheep as will yield from 15 to 25 pounds of fine wool, as it will cost to keep one that is only half covered with wool, and of an inferior quality at that.

Could we have been told 30 or 40 years ago, that we should witness such excellent improvements in sheep as we now meet with, both in regard to fleece and carcass, we should have laughed at such prognostication, and called a wise man a dunce for even thinking of such things. But judging from what has been accomplished in improving sheep, may we not confidently expect as great and as good, or even better improvements in a few years to come.

Auburn, N. Y. S. EDWARDS TODD.

Kettles are cleansed of onion and other odors by dissolving a teaspoonful of pearlash or saleratus in water and washing them.

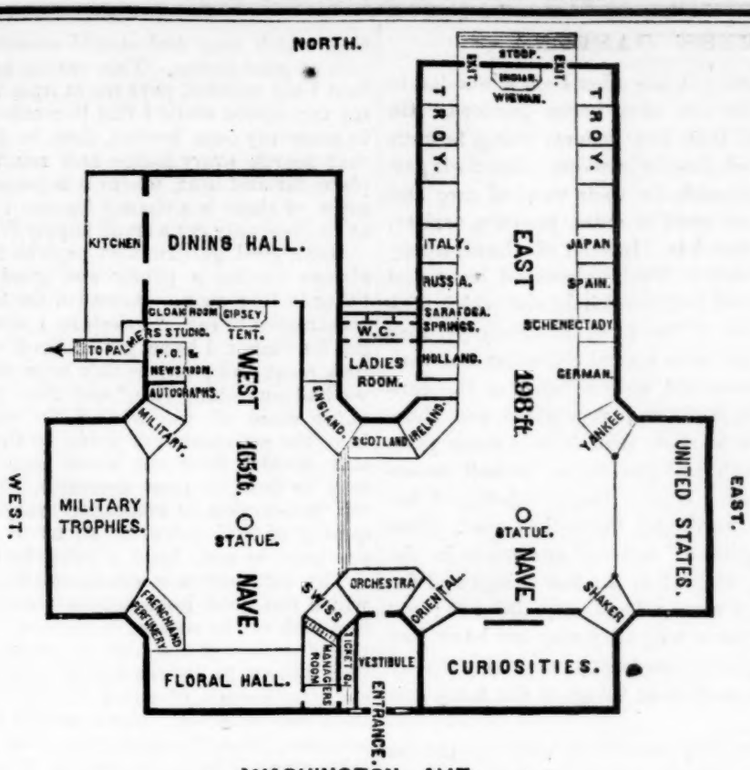
WATER, AND HOW TO GET IT.

In one of S. E. TODD'S interesting articles he speaks of the importance of having stock water near at hand, but fails to tell us how to have it handy. All men have not the same use of brains—all are not so apt in remedying a difficulty as is friend Todd. Possibly he thought, "it is enough to tell of the fault; they will remedy it." I have known cattle to go until the *third* day before they were driven to "the run," and I have known them even then, the wind blowing keenly, the snow driving furiously, to turn around and bolt back to their yard-quarters without taking one sup. No one needs be told that these cattle needed water, and any one that saw them, as they went shiveringly along the way, would say that if they drank at all they would have no comfort.

But to my point. How for their comfort, how for their want, how shall we get it, right at hand, at the stable or the yard? Build cisterns you that have roofing enough, and save for your beasts the best water that beasts ever drink, the unimpregnated water of clouds. Strange that men will not think of it; yet so it is. And I have known men who had cistern-water for house use, whose stable roofs shed its rain to waste, and whose stock was driven the year round one half mile for water. Tell it, do it, build cisterns for beast as well as for man; and if your roof are not large enough, as is most commonly the case, then *underdrain*. Have you descending ground, tap the rise, and let the drains empty into the cistern. Vent the cistern that the surplus water shall pass out below the frost line, and from this ground roofing, this water shed, you may have enough water just where you want it, at any corner.

Have you a spring upon higher land, its waters may be easily brought in pipes of wood, metal or stone, under ground, to the spot. A well upon higher land? Go below the well until the bottom of the frost lines carried up will tap the water in well. Trench up say to within six feet; then, if soil, pierce through and insert your tubing; if rock, drill through and you have the water started; keep it on until you have it where you want it. Hoping this subject may be continued by others, I will hint no more.

Nursery Hill, Nebraska. H. T. VOSE.



GROUND PLAN OF THE BUILDING FOR THE ALBANY BAZAAR.

Albany Fair in Aid of the Sanitary Commission.

The Bazaar building, erected in the Academy Park of this city, in which was held the great Fair contributed to and conducted by citizens of Albany and Troy not only, but of various other localities in the State, and of which the above diagram furnished us by the architect, Walter Dickson, Esq., is an accurate representation, was opened on the 22d of February, and drew thousands of strangers to the city, not only from the attractions it presented, but also for the object to which it was devoted. The Albany Morning Express, furnishes the following description of this building:

For lightness, strength and economy in the cutting and working of materials, the building cannot be surpassed. Notwithstanding all this it is supplied with an abundance of braces and supports to resist all pressures and forces, and render it perfectly safe. It is in the form of a double Greek cross, the eastern nave being 189 feet long, the western nave 160 feet long, and the transept 205 feet long; height of eaves from floor 14 feet; height to apex of roofs from floor 28 feet; width of naves and transept 60 feet. The booths are between the posts supporting the roof, occupying all the wall space of the building, and are named and appropriated as in the diagram. Adjoining the main buildings are the Ladies' Toilet Room and the Kitchen (and a large building, 20 by 80 feet, for heavier articles, not in the diagram.) Behind all the booths is a space or passage way for the accommodation of the ladies who are to take charge of them, and to afford an easy means of communication between them. Tables have been put up across the front of the booths to prevent egress or ingress that way.

The Fair was continued for fifteen days, and the receipts amounted to about $100,000.

Sheep Show.—The Thorn Hill (Onondaga Co.) Farmers' Club, have decided to hold a second Sheep Show on the 2d of June next. Their success last year will stimulate to the most ample arrangements for one of the largest exhibitions of the kind ever held in this country.

Cost and Return of a Fat Ox.—The Springfield Republican gives an interesting account of a fat ox lately killed at Westfield, Mass., from which we condense the following particulars as to his cost, feed, &c., at different ages:

Age.	Cost to Date.	Feed preceding 6 Months.	Live Weight.
6 days,	$4	——	87 pounds.
6 months,	10	Milk and grass.	550 do.
1 year.	29	Hay, potatoes and provender.	820 do.
1½ years,	39	Grass.	1,070 do.
2 do.	59	Hay and 2 quarts provender.	1,360 do.
2½ do.	72	Pasture only.	1,550 do.
3 do.	94	Hay and 3 quarts provender.	1,735 do.
3½ do.	108	Pasture only.	2,005 do.
4 do.	136	Four quarts meal and hay.	2,215 do.
4½ do.	166	Meal and hay.	2,365 do.
5 do.	198	Five quarts meal and hay.	2,570 do.
5½ do.	233	Six quarts meal and hay.	2,710 do.
6 do.	274	Eight quarts meal and hay.	2,815 do.
6 yrs 10 mos	339	Twelve quarts meal and hay.	2,840 do.

He was slaughtered at the last mentioned age, and the weight given at the time (2840 pounds) was after a fast from both food and water for 40 hours. "He sold for $325, or nearly 11½ cents, live weight. His green dressed weight was 2,529 lbs., as follows: Beef, 2,209 lbs.; tallow, 190 lbs.; hide, 130 lbs. There were 70 lbs. tallow on his paunch. He was very light of offal, small-boned and sprightly, a beautiful pattern of an ox, and a remarkable feeder and grower."

This table affords an illustration of the fact that long periods of feeding seldom *pay* pecuniarily, even when an animal reaches unusual size. It will also be noticed that the gain in weight decreased (with one exception) during each succeeding year, as below:

Gain 1st year,	733 pounds.	Gain 4th year,	480 pounds.
2d do.	540 do.	5th do.	355 do.
3d do.	375 do.	6th do.	245 do.
Gain last 10 months,	25 pounds.		

And this illustrates the advantage of those breeds which mature early, enabling the farmer to turn over his money at shorter intervals, as well as giving a better profit upon the outlay. This ox could have been sold, probably, at 3½ or 4 years old, at a fair profit upon all he had cost, while the result in the end was a slight loss in money, not to speak of labor and interest. The owner had, however, the satisfaction of making an excellent beast, and deserves great credit for the careful account he has kept of its cost and progress. It was half Short-Horn in descent.

FARMERS' GARDENS.

EDITORS CO. GENT.—It has often been a wonder to me why farmers do not have better gardens. Go where I will, I find that, as a general thing, farmers have the merest apologies for gardens; that their gardens are more noticeable for their want of care and neglect than for any good or extra produce, variety, or beauty of their contents. Instead of a hard, weedy patch, containing only a few late stunted trees and vegetables of the most common kinds, and which altogether constitute one of the most unsightly portions of the farm, why not have a good collection and variety of the best known and most reliable of the various kinds of garden fruits and vegetables, and these grown in a manner to show that there is some pride taken in their growth and production, as well as satisfaction in their use. True, a large majority of farmers have to work hard, and think they can't afford to have a "fancy garden," laid out and made in the best amateur style, with all of the fine things and fixins in the garden of some village acquaintance; yet there is no good reason why they may not have just as good fruits and vegetables as any one, and probably at one-fourth the cost of these things to the fancy gardener.

My garden is generally considered very superior, as compared with the general run of farmers' gardens, though I doubt not it would be viewed in a very different light by many amateur gardeners, for it is made for use rather than show, my principal aim being to have a good variety and bountiful supply of such things, as I am—and as I believe every other working farmer is—able to raise. Still, I am often called on to show my garden to friends and neighbors, and being somewhat strongly impressed with the advantages and profits, as well as the satisfaction of having a good garden, I often take such occasions to ask farmers why they don't have better gardens. But among all of their various reasons and excuses, I find none so strongly adhered to as the opinion that it don't pay. They will generally begin by saying "they would like to have a good garden, but they have no good place for it;" their "soil is not suitable." Tell them that by underdraining, and adding what appears to be wanting in the soil, it can be made good, and they will answer, they hav'nt time. Tell them to hire a man a few days, to put their garden plot in good condition, and the answer is, "it won't pay." And thus it is, in whatever light the subject may be brought up, they are sure to say that in their opinion it don't pay, and this opinion is generally stoutly adhered to.

But is it true, it don't pay? That the constant succession of fruits and vegetables that may be had, beginning with the first grown in the spring, when all of the last year's produce is not or need not be gone, all through the summer, fall, winter, and spring, until the year comes round again, always having a sufficient amount and variety to have some of them, in some of their different forms, on the table every day; that the convenience of having every thing handy, instead of the women having to go to a distant part of the farm for green peas, early potatoes, or green corn, or perhaps take a man or boy from his work to do it for them; or perhaps all hands get into the lumber wagon, and away to the distant berry field—to then fail in getting a few of these luxuries that it is so hard for people to make up their minds to do without; when, instead of all this trouble, a constant supply of all these things, of much better quality, and greater variety may be had, where it will only be a pleasure to gather them when wanted. And finally, the saving in other and more costly kinds of food that may be realized by always having a plenty and good variety of vegetables, which may and should constitute an important part of good living. This saving in other articles of food I am satisfied pays me at least twice over for raising vegetables, while I find it much easier and cheaper to grow my own berries, than to join in with those that search every hedge and rough out of the way place, far and near, where it is possible for a berry to grow, or there is a chance for one to be left, and then at the best only get a small supply of half-ripened fruit.

But a good garden also pays in the satisfaction of always having a plenty and good variety of every thing in its season. Instead of the farmer's wife being constrained to say, "I declare I don't know what to get for dinner, I have got so tired of meat and potatoes, meat and potatoes day after day, that I do wish we had something else," and then perhaps go on and name some of the wished for vegetables, she can have the satisfaction of going to the garden or cellar, and choosing from the kinds then in season such as may be thought most desirable. She will also have the satisfaction of constantly varying the kind and quality of food prepared, so as to very seldom have precisely the same kind of living for two days together.

This satisfaction is also shown in the pleasure with which the good housekeeper places on the table the first dish of the season, of each of the choicest varieties of garden fruits and vegetables, each early and well grown in its season, as well as in the pleasure and gratification of all of the family in partaking of these real luxuries. Nor does this satisfaction stop in preparing these things for her own family. She will take great delight in placing them before visitors; especially when pretty sure to be told, "Well now this is a treat, these are the first," or "the best I have seen," or that "these strawberries," or "raspberries," or "peaches are the earliest or best I have seen yet." Another source of satisfaction will be found in presenting some of the best of these things to some particular friends, as well as in sending such as are suitable, particularly fruit, to any sick person that may not be able or likely to obtain them.

There is yet another way in which a good garden will pay, as I believe it is admitted by all that a proper and judicious use of fruits and vegetables, is highly conducive to health. But as this communication is getting too long, I will leave it for those better qualified to treat this part of the subject.

For these, as well as for other reasons that might be given, I have no doubt that it will pay as well as anything else on the farm, for every working farmer—and it is for these in particular that I am now writing—to have a good garden. At another time I shall have something to say about making the garden.

Western N. Y., 1864. F.

Top-Dressing Meadows---Bush Harrows.

Early in April, as soon as the frost will admit, cattle droppings, and other lumps of manure *on meadows*, should be spread fine and evenly as possible. This can be accomplished very rapidly with a team and bush, selecting a damp day immediately after a rain.

For making a bush take a scantling 9 feet long, about 8 inches wide, and 3 inches thick—a strip of band iron should be put on one edge, so as to make it a scraper, and bore ten holes with a 2 inch auger, and insert a suitable bush into each of these holes, and you have a bush that will spread manure on meadows and bush in clover and grass seed sown on grain crops.

Triangle, Broome Co., N. Y. C. B.

To Prevent Dogs from Killing Sheep.

Put bells on your sheep. Bell half your flock of different toned bells. Dogs prefer doing this deed secretly, and if they become so bold as to attack belled sheep, the bells will make sufficient alarm.

NOAH EVINGER.

Meeting of the Ohio Pomological Society.

The Annual Meeting of this Society was held at Toledo, Jan. 12th, 13th and 14th, with a large attendance of fruit growers, representing nearly all sections of of Ohio, and a respectable delegation from Indiana and Michigan. The citizens of Toledo, and its vicinity, contributed much to the interest by their attendance at the meeting, as well as by their cordial hospitalities to those from abroad. The exhibition of fruits, especially of apples, was very fine. There were also some winter pears, well kept grapes, and numerous specimens of wine.

At the opening of the session an appropriate address of welcome was delivered by J. AUSTIN SCOTT of Toledo, Vice-President of the Society, and in the evening the annual address was delivered by the President, Dr. J. A. WARDER of Cincinnati. It was an able and interesting review of the history and progress of pomology in this country, and was listened to with marked attention by a large audience.

Officers Elected for 1864.

President—Dr. J. A. WARDER, Cincinnati.
Vice-President—J. AUSTIN SCOTT, Toledo.
Treasurer and Secretary—M. B. BATEHAM, Columbus.
Members of the Committee ad Interim to the above Officers—S. B. MARSHALL, Massillon; J. R. MILLER, Springfield; G. W. CAMPBELL, Delaware; F. R. ELLIOTT, Cleveland.

Varieties of Grapes.

CATAWBA.—After a lengthy discussion with reports from nearly all parts of the country, the conclusion seemed to be that although this variety often fails to ripen well in most localities, it was still the most reliable wine grape as yet known or fully tested in this country, though some were of the opinion that other sorts would in time supplant it in a majority of districts.

DELAWARE.—Dr. Warder and Mr. Bateham spoke of the success of Mr. Mottier and others at Cincinnati, in making excellent wine of this grape, but they admitted there was need of further trial before it could be positively affirmed that wine could be made as good and profitably from the Delaware as from the Catawba, where the latter succeeds well. Here followed quite a lengthy discussion on the merits of this grape, its growth, culture, &c., in which nothing particularly new was elicited, excepting that Mr. Dewey of Sandusky somewhat surprised the many admirers of the Delaware by stating he had discovered that it was the *poorest of all grapes for keeping.* "What, poorer than the Concord?" cried one. "Yes, poorer than the Concord," said Mr. D., and in proof of his assertion he said he had deposited a basket of 20 pounds or over, good ripe bunches in his cupboard, and in 24 hours not a single berry was to be found! The smile that followed this explanation was quite audible. Mr. Boalt of Norwalk contended that the Delaware was the best of all grapes, and hence the best for "farmers and the million." Mr. Nelson of Fort Wayne said he was a farmer, and he liked the Delaware grape; but he would venture to say it would never be extensively planted by farmers.

DIANA.—Mr. Elliott and Mr. Steers said their impressions of this grape were more favorable than formerly. Mr. Dewey and Mr. Lum spoke of the variableness of its character and uncertainty of ripening well, but when ripened very good. Dr. Warder and Mr. Bateham objected to its high musky flavor and thick skin; but found it sometimes very good.

CONCORD.—General admission that this is the "grape for the million"—for farmers, and others who are too much absorbed in business to bestow the care and culture required by finer varieties. Mr. Lyon of Michigan, thought it a very desirable variety for northern climate. Mr. Adair of same State, regarded it as second in value to the Delaware. Mr. Scott of Adrian, also spoke highly of it.

HARTFORD PROLIFIC also received commendation, especially from those living in northern latitudes. Several gentlemen stated that its fault of letting the berries drop from the bunch as soon as ripe, was almost wholly cured by age and good culture.

CLINTON.—An effort was made to strike this from the list of approved varieties, but a number of speakers from the north were unwilling to give it up, and Dr. Warder said it made better wine than the *Oporto.*

CUYAHOGA.—Dr. Taylor said it did not ripen as well the past fall as he had hoped, and the vines were not perfectly exempt from mildew while young; still the fruit was so fine when ripe, and the vine so hardy, that he was not willing to give it up; he thought it might yet improve. Mr. Barney said it ripened well with him, but late. He thought it a better grape than the Lydia, but was two or three weeks later.

LYDIA.—Mr. Elliott thought this might be found a good grape for early market culture; has thick skin, fitting it to bear carriage well, fine color, and good flavor. Mr. McElroy of Sandusky said it had done well with him the past season—rotted the year previous. Mr. Barney and Mr. Lum of Sandusky, had observed it for several years; thought well of it, but did not think it a good bearer. Mr. Ward said he had a fair crop of it, but not half as much fruit as on the same wood of Isabella. Did not think it sufficiently productive for a market variety. Mr. Campbell had found it early and good—not as early or as productive as the Delaware.

MOTTLED.—Mr. Elliott said the more he saw of this grape the more highly he esteemed it; thought it might prove a good wine grape. Mr. McElroy had seen it several years at Mr. Carpenter's; did not think very highly of it. Mr. Barney has had it six years; finds it improves; counts it worthy of trial by amateurs.

CREVELING.—Mr. Campbell had fruited it, and finds it a pretty good early grape; better than Hartford Prolific and quite as early.

LOGAN.—Mr. Elliott spoke well of this grape; had seen it several years; as early as the Hartford Prolific, and better quality. Mr. Barney had known it very many years; original vine on Scioto river, in a big wild cherry tree; thought it the best early grape. Mr. Nelson had known it in Indiana, 25 or 30 years; it was introduced there from the Scioto country; he thought it of some value for earliness and hardiness, but not of very good quality. Mr. Campbell said it was very hardy and early, fair quality, but deficient in size of bunch and productiveness.

REBECCA.—Dr. Warder, Mr. Fahnestock, Mr. Powers, Mr. Elliott and others, spoke well of it. Mr. Campbell said it was not quite hardy, and mildews sometimes. Mr. Adair said it wants a little protection in Michigan, but fruit is fine and he likes it.

ADIRONDAC.—Mr. Elliott spoke of this new grape as promising to be the best early hardy grape known—the vine as hardy as the Delaware, and a vigorous grower; fruit of fine size and quality; very early and productive.

ROGERS' HYBRIDS.—Mr. Campell, by request, stated his view at considerable length in regard to these new grapes, describing the most valuable and promising ones; but his remarks being in substance the same as already published in this and other journals, it is not necessary to occupy space with them here further than to say that as the result of his experiments with a large number of these seedlings, he gives the preference to the following six, in the order here named: Nos. 3, 15, 19, 33, 4, 9. No. 3, he considers best of all; it ripens with the Delaware.

NORTON'S VIRGINIA was spoken of by Dr. Warder and others as becoming very popular as a wine grape in Missouri and the southwest, but doubts were expressed whether it could be relied on to ripen its fruit generally in Ohio; though Mr. Elliott said he had known it to ripen well at Cleveland.

Peaches—Best Varieties for Market.

After the revision of the catalogue of peaches and the adaptation of the several varieties to the different sections of the State, some discussion was had in regard to the best 10 or 12 varieties ripening in succession, for market purposes; and the Secretary of the society having had some correspondence with peach growers in other parts of the country on this subject, he read extracts from several letters, in substance as follows:

Mr. ISAAC PULLEN, a noted peach grower and nurseryman of New-Jersey, says: "I place *Hale's Early* as the best and earliest peach, and I know of none better than *Troth's Early* to follow it; then *Large Early York* (of which I consider Haines' Early, Honest John and Walter's Early, *synonyms.*) After these come the Crawford's Early and our Yellow Rareripe, ripening close together. Oldmixon Free is the best orchard variety, ripening between Crawford's Early and Crawford's Late; (Bergen's Yellow is too shy a bearer,) then follows *Smock* and *Beer's Smock*, which we think is an improvement, and last of all *Heath Cling.* But there are several excellent market varieties ripening with some of the foregoing, and desirable in many places to make up a greater assortment, or to suit the taste of all customers. I will therefore name some of these in their regular position, as to time of ripening, along with those already mentioned. Those grouped together may be regarded as ripening at one time:

1. Hale's Early,
2. Troth's Early,
3. Large Early York,
4. Crawford's Early,
5. Yellow Red Rareripe,
6. Old Mixon Free,
7. Mary's Choice,
8. Reeves' Favorite,
9. Stump the World,
10. Ward's Late Free,
11. Harker's Seedling,
12. Late Rareripe,
13. Crawford's Late,
14. Smock Peach,
15. Beers' Smock,
16. Crocket's Late White.
17. Late Heath Cling.

"I think so highly of Hale's Early that I have budded forty thousand of this variety the present season. The *Cooledge's Favorite* is not a good orchard variety with us. The *Early Alberge* with us is a small yellow peach, ripening nearly with Troth's. The Yellow Red Rareripe is a large, yellow fleshed peach, red outside, ripening with Crawford's Early—this, I suspect, will prove identical with *Barnard's Yellow* of many catalogues. The Early York (serrate) and Early Tillotson are not worth cultivating in an orchard. *Stump the World* has produced well with me for the past two years, and bears carriage well."

Mr. BATEHAM remarked that in many parts of the country the name *Honest John* was applied to the early yellow peach—the *Yellow Alberge* of Mr. Pullen—as in the following extracts:

From a peach grower at South Pass, Ill.: "We have had no fruit grown here of *Hale's Early* as yet, but specimens sent here from Michigan greatly please us. I do not know that *Yellow Rareripe* has fruited here, but one orchardist has an early yellow peach that he brought here from a Lockport nursery, under the name of *Honest John*, which is esteemed a very profitable variety. I know of but one good market peach grown here ripening between Crawford's Early and Crawford's Late, that is *Oldmixon Free.* The best yellow fleshed peach for this purpose is supposed to be *Jacques' Rareripe; Bergen's Yellow* or *Orange*, has not fruited here to my knowledge."

From Dr. L. COLLINS, St. Joseph, Mich.: "Our next peach, after *Hale's Early*, is Wheeler's Early, a rather poor peach, but early, and sells well—then Troth's Early; next Cooledge's Favorite and *Honest John* (yellow fleshed) a great bearer and fine market peach. Then *Large Early York* and *Crawford's Early*, followed by *Bergen's Yellow*, a remarkably fine yellow peach, selling for the highest price, but not a very profitable peach to raise, as it is a shy bearer. Oldmixon Free is a good peach of the same season; *Ward's Late Free* a little later and a variety known here as *Keyport White* stands at the head of all our late white fleshed peaches (freestone.) It does not ripen till near the last of October, and will stand severe frosts."

List by Mr. Beeler and Mr. Loomis of Indianapolis

Hale's Early,	Old Mixon, Free,
Troth's Early,	do. Cling,
Coledge's Favorite,	Crawford's Late,
Large Early York,	Smock,
Crawford's Early,	George the 4th of Ia. (?)
Barnard's Early,	Heath Cling.

By T. T. Lyon, Plymouth, Michigan.

Hale's Early, (not tested.)	White Imperial,
Troth's Early.	Barnard's Yellow,
Coledge's Favorite,	Old Mixon, Free,
Large Early York,	Crawford's Late,
Crawford's Early,	New-York Cling.

By F. R. Elliott, Cleveland, Ohio.

Hale's Early,	Sturtevant (of Elliott,)
Troth's Early,	White Imperial,
Cooledge's Favorite,	Old Mixon Free,
Yellow Rareripe, (Alberge.)	President,
Large Early York,	Ward's Late,
Crawford's Early,	Tippecanoe Cling.

By F. G. Hill of Warren Co., Ohio.

Troth's Early,	Crawford's Late,
Large Early York,	Heath Free,
Crawford's Early,	Smock Free,
Old Mixon Free,	Heath Cling.

By M. B. Bateham, Columbus, Ohio

Hale's Early,	Old Mixon Cling,
Troth's Early,	Crawford's Late,
Yellow Alberge,	Stump the World,
Large Early York,	Late Rareripe,
Crawford's Early,	Smock,
Old Mixon Free,	Heath Cling.

STEAMED INDIAN BREAD

MESSRS. EDITORS—As I have a very good recipe for making Indian bread, and never seeing any that could come up to it in the Co. GENT., thought I'd send mine, as it might be acceptable to some of your lady readers.

One pint of buttermilk—one do. of Indian meal—one do. of coarse flour—one cup of molasses—one teaspoonful saleratus. Add a little ginger if you wish. Mix well together these ingredients—put into a two-quart basin—then set it in a steamer and steam three hours. See that the water does not stop boiling, and avoid lifting the cover to "peep in." When through steaming, set it in the oven for ten or fifteen minutes, so as to form a sort of a crust. Try this, and I know you'll pronounce it good. ELIZA. *Flackville, N. Y., Feb.* 24, 1864.

GOOD VINEGAR.

As I have seen from time to time inquiries for making good vinegar, I will give you the way I made a half barrel some two years ago, which we have been using out of ever since, and is now better than ever, and pronounced by all who have tasted it the best for strength and flavor they ever tasted—in fact we never dare use it full strength. In the spring I had left several gallons of a barrel of cider that got too sharp for drinking, to which was added nearly as much soft water, a lot of refuse molasses, the remains of a keg of beer left from the previous harvest, probably another gallon—two handfulls dried apples, a piece of brown paper dipped in molasses, to form the mother—then added a cake of dry yeast, and let it go to work, with a piece of musquito-bar over the bung. Then when fruit-canning time came, we had several kinds (raspberries and strawberries) which, from imperfect sealing, fermented; these went into my keg—then all the apple and peach-parings were saved, put down in a stone jar and covered with soft water, and allowed to thoroughly ferment, these strained and the liquor added to my keg, with a little molasses from time to time, and by the end of summer we had excellent vinegar; and we have been using, as I said, nearly two years from that same keg, saving apple-parings and fermented can fruits to keep up the supply, or sometimes adding water and molasses if it gets down much. There is a fine mother formed in the keg, which acts the same as the celebrated vinegar plant, converting everything put in to vinegar. A. A. CRAMPTON.

"Sunnyhill Farm," Henry Co., Ill., Feb. 19.

SCAB IN SHEEP.

E. M. I. proposes several questions relative to the scab. Having had a good deal of experience with it, more particularly in England, will endeavor to answer some of his questions:

1. Not having tried tobacco alone, cannot answer positively, but should say it would not prove effectual.

2. If the sheep are very bad and rubbing off the wool, would shear at once, taking care to keep them well housed for a week or two.

3. Have not tried the solution, and should not place much faith in it.

4. Should not risk sheep in same pen for 8 or 10 months—(have heard it said in England that sheep are liable to take it 18 months after being put in same field scabbed sheep have run in)—without either painting the posts, rails, &c., with gas tar, or washing with solution of chloride of lime.

5. No, not within a reasonable period of being dipped.

6. Sheep should be kept on good generous food, for they rapidly shrink under such continued annoyance.

7. No, if it has once taken the disease; but they will not so readily take it as the long wools—particularly the strong and healthy ones.

8. 'Tis rather tedious—a man accustomed to it would dress about 50 a day. It is an effectual remedy, but should be cautiously used. Sheep should be kept on same food some time before and after using it. Care must be taken they don't get wet. Ewes, for some time before or after lambing, should not be dressed. Rams should never be dressed. 'Tis dangerous to dress sheep feeding on rape.

9–10. It is—or in any other country unless it be the sheep pox.

I will now tell E. M. I. what I use and have found successful: Two lbs. tobacco—boil in 12 gallons water—½ lb. hellebore root (white)—6 ounces sulphur vivium—1 lb. whale oil soap, and 4 ounces arsenic—put in a bag and boil well together. When cool, dress the parts affected and along the back, with a bottle and quill. R. GIBSON.

DENT CORN IN MICHIGAN.

LUTHER TUCKER & SON—I have noticed in your COUNTRY GENTLEMAN lately, repeated inquiries for Dent corn, of variety best adapted to northern latitudes. I raise it in perfection here, and have no doubt but it may be introduced on sandy and gravelly lands in New-York and New-England, but do not believe it will there ever generally supercede Dutton, King Philip, Tillotson, Yellow Eight-rowed. Still here it will in this region out-yield all other varieties, and there on right lands. For three or four years past my corn has yielded—1860, on 17 acres, over 75 bushels per acre shelled corn, planted 4 feet by 5—1861, on 20 acres, over 90 bushels per acre, planted 5 feet by 6—1862, on same land, planted 6 feet each way, 75 bushels—1863, on 10 acres, injured by hailstorm and very little by the early frost, *estimated* 75 bushels per acre.

Three stalks, and no more, should be allowed to the hill, and should be planted on rich land here, 4 by 6 or 5 by 5 feet.

I have written this for the information of inquirers, but will add that the early frosts and severe cold of Jan. 1st has destroyed the vitality of last crop, and parties must be careful to get seed that is perfect.

Centreville, Mich., Feb., 1864. PERRIN M. SMITH.

BEST TIME FOR GRAFTING.

Early grafting, if properly done, is much more effective than late operations. Grafts set late may take with great certainty, but they never make much growth during the first season. Time seems to be required, after the graft is set, for the broken and bruised cells on the walls of the wound to heal and unite so as to allow free passage for the circulation of sap. Some pear grafts which I set in February of last season made a growth quite equal to the natural shoots on the other parts of the tree, and there was no trouble with sprouts or suckers, which in late grafting issue numerously and successively, owing, no doubt, to the difficulty above adverted to. For cherry, plum and the grapevine, early grafting is a sine qua non.

There is a risk in grafting early, arising from the long exposure of the scion to the effects of drying wind in March and April, which so parch and contract it as to close it against the flow of sap. This can be prevented by using short scions, and by coating the entire scion, or at least the lower buds, with a film of wax or varnish. Grape grafts or others near the ground can be covered with a little hay, straw or paper, to retain moderate moisture, and prevent ill effect from the contracting effects of frost and expansion by warmth which might either cause cracks in the coating of wax or displace the scions. Particular care must be taken that every part of the wound—even the slightest mark—is covered by wax to prevent evaporation. Whip grafting is the easiest and neatest method. For early work, a temperature of 45 deg., with little or no wind, allows the operation to be performed with ease. Nothing but a small knife, and a roll of waxed strips wound on a bit of wood a little larger than a lead pencil, is required, and this roll can be carried in a pocket for warmth or suspended from a button. Only a single spiral wrapping should be given, and it will then unwrap itself without attention as growth progresses, and without checking or choking it.

Tyrone, Pa. W. G. WARING.

WHAT KILLED MY QUEEN BEE?

Last season I had a queenless stock of bees which I supplied several times with a queen, which they killed. I tried again by putting a queen in a paper box with a hole large enough for air, but not large enough for a bee to pass out or in. I placed the box containing the queen among the bees; about an hour after I found the queen dead in the box.

As I handled the bee as a queen should be handled, it was very unexpected to me to find her dead; but as I have no experience in introducing queen bees into a queenless stock, I presume the fault was in my management, but how I cannot tell, or what could kill a bee in such a box I cannot tell. Will some one tell who can?

Columbia X Roads, Feb. 29. P. PECKHAM.

P. S.—I did not succeed in supplying the stock with a queen, until I put another small swarm containing a queen, with them.

English Beans.—I am surprised to find the English bean, *Vicia faba*, but little cultivated either in Canada or the United States. The large bean or Windsor, does not do well, but the medium or Magazans do well, but must be sown *early*. They will bear a slight frost. If not planted early the heat prevents the beans setting, which is also the case in England. The kind I now grow always did well except once, when injured by a late frost when in bloom. A. F. *Delaware, C. W.*

Yellow-Shafted Flicker—*Colaptes auratus.* SWAINSON.

"Golden-winged Woodpecker," "Flicker," "Highhole," "Hillock," "Yucker," and "Pint," are some of the provincial names which this well known bird receives in different parts of the United States. The first two are the ones by which it is most commonly known in Pennsylvania, and these two are the only ones which have come under the author's observation —the remaining four being given upon the authority of WILSON. As far as I can ascertain, the following are the reasons (if such they may be called) for their receiving those names: It receives the name "Golden-winged Woodpecker" from the bright yellow or golden color of the underneath parts of the wings and tail; "Flicker" from its peculiar flight—which is not in a direct line, as is the case of most birds, but undulating, or gradually rising and falling. It is called "Highhole," from the elevated position at which it sometimes builds its nests. WILSON assigns the other names to a "fancied resemblance of its notes to the sound of the words; for one of its most common cries consists of two notes or syllables, frequently repeated, which by the help of the hearer's imagination may easily be made to resemble any or all of them." With the reader's permission, we will style him the "Yellow-Shafted Flicker," or should we be of a scientific turn of mind, *Colaptes auratus,* SWAINSON—the latter being the name adopted by several eminent ornithologists.

The Yellow-Shafted Flicker is well known to farmers and young sportsmen, and both take every chance to kill him; the former for the price he will bring in market when in good condition, and the latter because he is easily shot and presents an attractive mark for their gun. Numbers of them resort to the Sour Gumberry trees, after they have raised their young, in company with the Robin, where they are destroyed by the dozens. They are also particularly fond of the berries of the Wild Cherry.

Early in April they arrive in Pennsylvania, and soon begin to prepare their nest. This takes them some time, and the eggs are rarely all laid before the 1st of May. A great deal, however, depends on the weather, and some seasons it is earlier than this, others much later. The nest is constructed in the hollow trunk of a tree, sometimes at the height of forty or fifty feet, while at others it is barely six or seven feet from the ground. They are not very particular in regard to the site of the nest, but wherever a good limb occurs, if it be in a suitable place, there they will build.

Great Carolina Wren—*Thryothorus ludovicianus.* BONAP.

The Great Carolina Wren must not be confounded with the House Wren (*Troglodytes aedon,* VIEILLOT) as it is entirely different. This will readily be seen by comparing the illustration of the Great Carolina Wren at the head of this article, with that of the House Wren which appeared in the first number of the CO. GENT. for this year.

The bird whose natural history we now propose to discuss is a great mimic. He often imitates the notes of the Red Bird or Cardinal Grosbeak (*Cardinalis virginianus,* BONAP.) The way in which any person may tell whether it is the Great Carolina Wren or the Red Bird is this: The Red Bird utters his notes in rapid succession without any perceptible pause, while the Great Carolina Wren utters them in twos and threes.

The bird under consideration is exceedingly active, and its motions bear a very great resemblance to those of a common mouse. It has the habit of hopping up the sides of trees very much in the manner of a Nuthatch, and when it arrives at the summit perching upon some small twig and pouring forth its melody—which if it does not equal that of the Canary in point of fineness certainly excels it in quantity.

This song has been thought to resemble the words "*Sweet William, Sweet William,*" quickly uttered. It has also another note which is somewhat like "*chirrup*—often dwelling upon the first syllable so long and loud that it might be mistaken for the Red Bird's note.

Audubon mentions several interesting circumstances in regard to this bird. He says that he often heard these Wrens singing from the deck of an old boat fastened to the shore, at a short distance from the city of New Orleans. When its song was finished they would amuse themselves by creeping and hopping from one crevice to another—suddenly appearing and disappearing through the different holes in the boat in the most unexpected manner possible. He also adds that they were frequently seen hopping on drifting boards, &c., and picking up many insects to be found in such places.

The Great Carolina Wren is rather a rare bird in Pennsylvania, and although some few doubtless do breed there, it is rather the exception than otherwise.

J. P. NORRIS.

Foreign Notices.

De Sora's Great Poultry Establishment.—All our readers have seen accounts of the mammoth poultry establishment for the production of Eggs and the fattening of Fowls, said to be carried on near Paris by a M. DE SORA. Newspaper paragraphs without end have detailed his wonderful success, and the thing has gone so far that no one is able to write an article about Poultry at all, without re-hashing some of these stories anew. But strange to say, we have never had them well authenticated in any way. A friend of ours who was at Paris two winters ago, informs us that he made every effort to find this establishment, but could meet with no one in Paris who even knew of its existence! Another friend who is to return to France the present month, kindly promises to investigate the subject for us, and the readers of the COUNTRY GENTLEMAN will eventually have an opportunity of knowing how much we are to believe of what has been in print.

Meantime we find that a writer in the Mark Lane Express of Feb. 1st, again enlarges on de Sora's marvellous achievements. We do not know whether it is the old story in a new form or not, as when it speaks of "the past season," "the last twelve months," &c., no dates are given. It tells us, very much in the old style, of his cutting up into chicken feed no less than 22 dead horses a day, the year round, from the streets of Paris—of wintering 100,000 hens, of occupying twenty acres with the sheds, offices, &c., of sending 1,000 *dozen* capons to market in the three autumn months of September, October, and November, of selling 40,000 dozen eggs a week during winter, and so on;—but we will not go more into detail here, at present, as we hope to have the matter ere long fully probed, so that we may know whether all this is really correct, or only a figment of some Frenchman's lively imagination.

Scotch Turnip Crops.—Thirteen crops each of Swedish and Yellow Turnips are reported as having been carefully inspected by a competent person chosen by the "Donside Turnip Club," for competition. The weight of roots after being "topped and tailed," was heaviest in one yellow turnip field, viz., 32 tons 2 cwt. 3 quarters and 12 lbs. per imperial acre. The heaviest crop of Swedes was at the rate of 30 tons 3 cwt. 2 qrs. and 8 lbs. per acre.

Pleuro-Pneumonia in Cattle.—The immense losses resulting from this disease in Great Britain are constantly attracting more attention. It is felt that measures must be taken to stop or limit its ravages if possible; and Sir George Grey has stated, from his seat in the House of Commons, that two bills are to be introduced into Parliament by the Under-Secretary for the Home Department, having reference to the prevention of disease, to the sale of diseased meat, and the importation of diseased cattle. The Scotish Farmer states that in Scotland, pleuro-pneumonia is becoming alarmingly prevalent. "At the rate of about a score of cattle, affected with the lung disease, have been killed every week in the Edinburgh slaughter-houses, and many more have had their throats cut in the private slaughter-houses beyond the city boundaries. Both in Perth and Dundee the disease has been raging, and Glasgow has formed no exception. * * Not only has the number of outbreaks which have come to our knowledge exceeded the number of last year, but their severity has been remarkable. On one farm eleven animals have died within three weeks. On a second dairy farm the half of a large stock has been already swept off. We are not in possession of the exact number, but about a dozen are dead, and several others sick. On a third farm five animals died within a week, and the remnant stock was disposed of a fortnight back in the Edinburgh market. Where this remnant stock is gone to disseminate disease we are left to conjecture. On four other farms we have been engaged in carrying out preventive measures, and in every instance the disease has been checked in its course." This is from the Veterinary editor of that paper, and the writer believes that traffic in diseased animals must be prevented in order to check the course of the plague, and this as we understand is to be one main object of the proposed legislation on the subject.

Characteristics of Scotch Stock.—A writer in the North British Agriculturist mentions it as a noteworthy feature in "all Scotch domesticated animals of the present day, comprising Clydesdale horses, Short-Horns, Kyloe, Galloway, and Ayrshire cattle, and Black-faced and Cheviot sheep—particularly when the specimens are first-class," that they "are thick in substance, mellow in touch, and stand on short legs."

The Claims of the Herefords.—Mr. Duckham, editor of the Hereford Herd Book, was one of the Cirencester lecturers—taking as his subject the History, Progress, and Comparative Merits of the Hereford Breed of Cattle. In conclusion, he sums up as follows:

"I consider I have shown sufficient in confirmation of the opinions I advanced at the commencement of this paper, viz., that the Herefords, although an acknowledged aboriginal race of cattle indigenous to the soil of the county from whence they take their name, readily become acclimatized, and retain their general character, not only throughout the United Kingdom, but wherever they have been fairly tried in distant parts of the world; also, that they continue fully to retain their reputation, which has for ages past been accorded to them, for aptitude to fatten; that the quality of their meat is unsurpassed, if equaled; that it is duly appreciated wherever they have been tried; that, by proper management, their milking qualities are good; that for early maturity and hardiness of constitution they are equal if not superior to any known breed; that they are a most valuable race of animals for their working powers when required; and whenever they have been fairly tried, the quantity of meat they make, in proportion to the food consumed, is such that they can justly claim to rank amongst the most valuable classes of animals known for the production of animal food, and therefore the most profitable breed of cattle for the grazier."

PRODUCTS FROM TWO COWS.

Our friend B. J. Rolla of Cicero, has two cows—one native, and the other part Durham—which, with ordinary fare, have produced the past season *seven hundred and fifty pounds of butter*, besides furnishing milk and cream for a family averaging four persons.

The butter was weighed when ready to pack, and a strict account kept of each weighing—so this is no guess-work. Such butter as his wife makes, would bring twenty-five cents per pound quick at the door, and then the account stands thus:

By 750 lbs. butter at 25 cents,	$187.50
Milk and cream used in family,	11.00
Milk fed to pigs, worth	10.00
Two calves at 75 cents,	1.50
	$210.00

Or $105 per cow. Who has done better?

Onondaga Co., N. Y. OBSERVATION.

A Good Prize.—It is said that Mr. E. R. Spaulding, President of the Middlesex North Agricultural Society, Mass., has given $40 to be distributed in three sums as prizes to young farmers, not over thirty years of age, who shall in 1864 and 1865, keep an exact account of all the productions of their respective farms in each of said years, and also a true account of the cost of producing them, on a comparison of which accounts a committee shall award the premium of $20 to the one who has produced the *most*, at the least expense; and other premiums of $12 and $8 consecutively to the next in order, on the same principle—the premiums to be awarded in the fall of 1865.

THE CULTIVATOR.

ALBANY, N. Y., APRIL, 1864.

A New Manufacture—Condensed Apple Juice.—Some weeks since we received from GAIL BORDEN, of Wassaic, Duchess Co., samples of his Condensed Milk and Coffee, similar to those heretofore noticed by us, as made by him, together with a number of cans of a new product of his ingenuity and skill—*Condensed Apple Juice.* We have tried it, as directed in the accompanying recipes, and find it a very welcome and excellent addition to the housewife's resources. The American Agriculturist supplies us with the following details as to its manufacture:

The apple juice, or sweet cider, before it has undergone any fermentation, is boiled down *in vacuo*, being reduced to one-seventh of its original bulk, without losing its flavor, or any good quality. It has no taste of boiled cider, but is a beautiful amber-colored jelly, pleasant to eat in its simple state, particularly as a tart sauce, with poultry, game, or other meats. It makes excellent pies and tarts, and may, in fact, be applied to all those uses for which dried apples or boiled cider are employed, and is much superior. Besides this, by the addition of six times its bulk of water, (the quantity originally withdrawn,) we may have sweet cider again, which will undergo fermentation, as it would have done at first, but more slowly, and like other cider go through all the changes, until it ultimately becomes hard cider. This apple jelly is not affected by exposure to the air, whether dry or moist, and neither sours, nor molds, nor dries, nor absorbs water. Such an article of course bears transportation in barrels or other vessels to any part of the world. This condensed apple juice sells at 30 cents per pound this year. The cider making and condensing commence as soon as apples ripen, and continue into the winter. Mr. Borden's establishment worked up more than 18,000 bushels of apples last autumn. Sweet apples yield a delicious fruity syrup, better for some purposes than the sour apple jelly.

Belts of Trees for Shelter.—Last spring large numbers of imported evergreens, more particularly of the Norway Spruce, which were encumbering the grounds of some nurserymen in larger quantities than they could dispose of, were cut down and burned as brush. There may be yet many more of the same sort, and we venture a suggestion to these nurserymen, as well as to the land owners in their neighborhoods, which may be of value to both.

The importance of sheltering land from prevailing winds is becoming well understood. Winter wheat and grass land are found to survive the winter better, and to come out in finer condition in spring, when protected from the sharp, cutting blasts which sweep without control over the surface of the land. Fruit-trees of various sorts, and especially the pear, are injured on the one hand, by cold wintry winds, and greatly benefitted on the other by proper shelter. Now we propose to owners of such over-stocked nurseries, and to the farmers of the neighborhood, to enter into an arrangement by which the one can dispose of their trees at a moderate price, instead of throwing them away, and the other obtain supplies of these trees at prices that will satisfy them. Suppose, for example, that a farmer can purchase a thousand trees for a hundred dollars. If set four feet apart, and properly cultivated for a while, they will form a dense screen against the winds in five years. If set eight feet apart, they will form an equally dense and taller screen in eight or nine years. The trees for these screens will cost in the first instance, forty cents a rod, and the thousand will plant 250 rods; in the latter the screen will be twenty cents per rod, and extend 500 rods. Can any farmer do better than to secure the opportunity for making such screens?

How to use Bones.—A subscriber in New-Jersey, Mr. JOHN R. PETTIT, of Sussex Co., communicates to the COUNTRY GENTLEMAN his method of dissolving bones and converting them into poultry, eggs and superphosphate. He says: "If agreeable, I will give you my method of dissolving bones and converting them into poultry, eggs and superphosphate of lime, viz.: I procure a large stone, having a foot or two of flat or nearly level surface—if it has an indentation on its surface of two or three inches deep, so much the better—for holding the bone in place while being broken. I place this stone in some open space, where the poultry most do congregate, and with a suitable hammer break the bones in pieces about the size of a hickory nut or less. Some of the pieces will fly off some distance, but the fowls will surely find every piece. After having had a taste of them, it is wonderful to see the quantity they will eat."

Mining, Geology, &c.—Prof. J. P. KIMBALL, late of the N. Y. State Agricultural College at Ovid, and more recently Chief of Staff to Gen. Patrick, in the army of the Potomac, honorably withdrew from the service some time ago for the purpose of entering upon the practice of his profession in the city of New-York. He has established an office at No. 19 Wall-Street, as a Geologist and Mining Engineer, and those who may have occasion for counsel in this and cognate branches of scientific investigation, will find him fully qualified, both from a thorough education in the best foreign institutions, and from extended experience in government and other surveys in this country. In Mining, attention given to the mode of occurrence of minerals and their mineralogical, metallurgical and technical relations; to the tracing, surveying and plating of lodes and mineral deposits; to boring, the sinking of shafts, and the laying out of mines; to mining machinery and construction; to the preparation of ores, etc. In Geology, attention given to surveys of lands with the view of determining their geological character or economic resources, to the examination of mineral lands as to their availability for mining purposes; to geognostical maps, especially in connection with topographical or linear surveys; to quarrying; to the examination of rocks for masonry, of limestones for cements and mortars, of clays for brick, tile and pottery, etc.

Horse Collars—Scotch and English versus the Dutch.—A friend, now beyond threescore and ten, who has all his life been a careful observer of the management of horses, has entered a most urgent and forcible protest at this office, against the *Scotch hame or English collar* for purposes of draft. He thinks that they are totally wrong in principle and application, and would go back to the old Dutch collar, consisting simply of a broad breast-strap, three or four inches in width—which, he says, fifty years ago was the only kind of collar in use by teamsters and farmers throughout this region. The stage-coach lines alone used hames, and then there was one common expression among good judges of horses, "never buy a horse which has been used as a stage horse six months." He argues that with the ordinary collar the point of draft is raised up from where it properly belongs to such a height, that the horse works to as great disadvantage as when a man attempts to lift a weight at arm's length instead of directly from the ground, and that consequently not only are the animal's neck and shoulders often made raw by the working of the collar as the muscles alternately affect its position on one side and the other, but also that permanent lameness is caused, and many a horse entirely

disabled in a few months or within a year or two, who might otherwise have proved a faithful and capable servant for a long period of time. He asserts that "a horse used in the Dutch collar, will draw more, will walk faster, trot faster, run faster, and live double the number of years, and have the use of his limbs." In fine the hame-collar is an absolutely "murderous invention, for which Nature may have made the mule—if Nature had any hand in making the mule at all—but certainly not the horse."

We present these arguments for the consideration of our readers, and shall be glad to have the subject receive the attention and discussion it deserves.

Chances for Boys and Girls.—A Wisconsin correspondent, who will accept our thanks for a list of new subscribers, adds the following postcript to his letter: "I wish some intelligent writer would set forth the importance of the many boys and girls, from 14 to 16, that are idle in your cities, and a tax in many cases upon your charity, coming west, where they would find steady employment—boys at from $8 to $12 per month, and girls at from $3 to $6, with good homes and the enjoyment of the same privileges as the families employing them. Boys of that age can plow, and girls will learn to keep house and make good housewives. One boy of 12 and another of 17, have plowed sixty acres on my farm this fall, and done it extra well, milked seven cows, and taken care of the sheep, colts and pigs. They are now at school, and look strong and healthy."

Agricultural Statistics in this State.—Owing to an unfortunate delay in the printing of the Transactions of the State Agricultural Society, those persons entitled to copies for having engaged last year in the collection of Agricultural Statistics, are as yet in many cases unsupplied. We are assured, however, that an edition sufficiently large has now been provided, which will be sent out the current week; and we very much hope that no one will be deterred from collecting Statistics this season on account of the slowness with which the services of others have thus far been acknowledged.

A New Fertilizer.—Mr. M. R. Callaghan, of New York, writes to the Co. GENT. that he has by chance discovered a new fertilizer, the results from which are such as to "leave no doubt on his mind that the simple compound composing it is one of the most fertile and luxuriant manures that can be applied to grass land or to crops." "This simple manure," he says, "could be made on the Allegany or Catskill Mountains, or any part of the country, at an expense of under $15 per ton." He gives no intimation as to the constituents of this fertilizer; but we are inclined to believe that the fact which he states, of the great increase of grass, &c., was owing more to the effect of irrigation than to any fertilizing elements in the material used.

Corn Fodder.—S. Ryder, of Ohio, writes in the Rural New Yorker, strongly recommending sowing corn as fodder, and pointing out the same course of culture that we have recommended for many years past, viz.: Furrowing out, strewing the seed in the furrow, and covering with a harrow; but he sows only a bushel and a half of seed per acre, which is only about one-half the quantity we have generally recommended for such drills. It is true that when thinly seeded the corn will be taller, and would be pronounced by a superficial observer as a heavier crop than from thick seeding. But on weighing, the latter will not only be found the heaviest, but will be finer and softer, and more readily eaten by cattle. We have weighed a crop sown at the rate of a bushel and a half per acre, or at the rate of twenty grains per foot in the furrow, and compared it, by weighing, with another crop, with three bushels of seed per acre, or forty grains to the foot. The latter was found to yield a crop one-third more in weight. This rule, however, will not apply to Sorghum for fodder, as it will not bear growing so thick, the larger stalks outgrowing and entirely smothering down the small ones.

The Goodrich Testimonial.—To the friends of agriculture, who contributed to the Goodrich Testimonial, at the late annual meeting of the New York State Agricultural Society, and subsequently: I am deeply affected by this testimonial of friendly regard to me, as the exponent of a particular branch of agriculture. Such spontaneous kindness claims my warmest gratitude, and all the more, as coming from the agriculturists of my own native State, although twenty other States have shared largely in these benefits, and five or six of them, to an extent equal to that of the State of New York. To the individual contributors to this testimonial, I hereby present my hearty thanks. I do so, through this public channel, because the state of my health would incapacitate me from addressing each donor, individually, even were I acquainted with his full address, which I am not. CHAUNCEY E. GOODRICH.

Utica, N. Y., Feb. 27, 1864.

Bone Dust as Manure.—A. P. CUMING, Esq., of the New York Observer, writes that in his experience in Westchester county, he has "found ground bones the very best and cheapest fertilizer to be obtained outside of the homestead farm-yard. Cost of transportation makes city manure expensive, and especially if not near sloop dock. When within one or two miles of good dock landing, city stable manure will cost six to ten dollars the cord when it reaches the farm. Bone dust by the quantity costs as to quality from 50 to 70 cents the bushel. Twenty to twenty-five bushels of bone is a good dressing to the acre, and is worth from two to three times the same cost as stable manure brought from the city. Bone dust should be applied to and left as near the surface as may be, and be suitably covered. We usually sow broadcast after the first harrowing. The second course of the harrow will cover near the surface."

Several years ago Mr. C. sowed rye in autumn on a five-acre field very much run down, after a potato crop that appears to have been exceedingly "small and few in the hill"—applying 25 bushels of bone dust to the acre. "Such was the immediate effect of the application, that when the rye was grown, a man of ordinary stature would be concealed by the crop in walking through the field. Grass seed was sown with the rye. A good crop of hay was taken the first year it was mowed. But the second year, when turf was well established, sixteen tons of hay were taken from the five acres. After mowing it four years, it was plowed and planted to corn, giving a heavy crop without manure."

Curing Horses from Pulling on their Halters.—A correspondent of the Genesee Farmer thinks that horses can draw with more force on the head than anywhere else; and, hence, if halters are made strong enough, the head will be apt to be injured, and poll-evil induced. He therefore recommends a strong strap-halter passed about the neck, for animals which have acquired this habit, and which will cure them in a short time, as they accomplish nothing.

Liberality.—An Academical institution has lately been founded at Adams, Jefferson Co., to endow which the citizens of that thriving town have subscribed the sum of $10,000. Gen. SOLON D. HUNGERFORD has presented to the Trustees a building of the value of $13,500; and, in token of appreciation for this magnificent gift, they have determined to call it the "Hungerford Collegiate Institute."

New-England Agricultural Society.—In pursuance of notice a meeting was held at Worcester, last week, for the organization of a general agricultural society for the six New-England States. There was a good attendance of leading agriculturists, including Messrs. Goodale, Anderson and Chamberlain, from Maine; Messrs. Smyth, Hubbard and Walker, from New-Hampshire; Prof. Johnson, Messrs. Dyer, Collins, Webb, and others, from Connecticut; Messrs. Pearce, Perry and Buffum, from Rhode Island, besides a large number of farmers and others from different parts of Massachusetts. A constitution was adopted, providing, among other points, for an exhibition in the several States in rotation, commencing in Massachusetts, and that the trustees of the several States shall constitute an executive committee for each State. Aside from five trustees for each State, the following were the officers elected for the first year:

President—Dr. GEO. B. LORING, Salem, Mass.

Vice-Presidents—E. Holmes, Winthrop, Me.; F. Smythe, Manchester, N. H.; Daniel Kimball, Rutland, Vt.; Wm. H. Prince, Northampton, Mass.; T. S. Gold, West Cornwall, Conn.; and Amasa Sprague, Cranston, R. I.

Secretaries—Charles L. Flint, Boston, and Henry Clark, Poultney, Vt.

Treasurer—Thomas Saunders, Brookfield, Vt.

An address was delivered by Prof. S. W. JOHNSON, of New Haven, on the objects of such an organization, and the means of promoting agricultural progress, after which the meeting adjourned.

The Association of Breeders of Thorough-bred Neat Stock held its annual meeting at Worcester, March 2d, when the following officers were chosen:

President—H. H. PETERS, Southboro, Mass.

Vice-Presidents—Thomas Sanders, Brookfield. Vt.; J. J. Webb, New Haven, Conn.; E. N. Jameson, Antrim, N. H.; S. L. Goodale, Saco, Me.; E. D. Pearce, East Providence, R. I.; E. H. Hyde, Stafford, Conn.

Secretary and Treasurer—H. A. Dyer, Brooklyn, Conn.

Committee on Ayrshires and Herefords—H. H. Peters, Southboro, Mass.; Thomas E. Hatch, Keene, N. H.; Wm. Birney, Springfield, Mass.

Committee on Devons—H. M. Sessions, South Wilbraham, Mass.; B. H. Andrews, Waterbury, Conn.; E. H. Hyde, Stafford, Conn.

Committee on Short Horns—S. W. Buffum, Winchester, N. H.; S. W. Bartlett, East Windsor, Conn.; P. Stedman, Chicopee, Mass.

Committee on Jerseys—John Brooks, Princeton, Mass.; Jonathan Forbush, Bolton, Mass.; John Giles, Woodstock, Conn.

Voted that the various committees on pedigrees be authorized to receive and examine, and on approval, to make record of all animals offered with a fee of fifty cents for each animal offered, and that the secretary record annually all pedigrees reported by the committees.

Indiana State Board of Agriculture—The following are the officers for 1864:

President—Hon. STEARNES FISHER of Wabash.
Vice-President—Dr. John C. Helm of Muncie.
Secretary—W. H. Loomis of Indianapolis.
Treasurer—Frank King of Indianapolis.
Executive Committee—The President, ex-officio; A. D. Hamrick of Putnam county, Dr. John C. Helm of Delaware, J. A. Grosvenor of Marion, A. J. Holmes of Fulton.

Ohio Cheese Association.—At a meeting of cheese makers held at West Claridon, Feb. 2, an Ohio State Cheese Manufacturers' Association was organized, a constitution adopted, and the following officers elected:

President—A. BARTLETT of Geauga.
Vice-Presidents—H. N. Carter of Lake; H. Osborn of Ashtabula; W. J. Eldridge of Portage; E. Stanhope of Geauga; H. A. Chamberlain of Summit; E. C. Cox of Trumbull, and —— Clark of Cuyahoga.
Rec. Secretary—F. H. Mills, Bridge Creek, Geauga Co.
Cor. Secretary—L. Bartlett, Ford, Geauga Co.
Treasurer—A. D. Hall, Claridon, Geauga Co.

Albany Co. Ag. Society.—The annual meeting of this Society was held at John McEwen's Hotel in Clarksville, Feb. 24, when the following officers were elected:

President—LEONARD G. TEN EYCK, Bethlehem.
First Vice-President—David Witbeck, Coeymans.
Vice-Presidents—Albany, Matthew Hallenbeck, Peter E. Jones, George Young, William A. Sumner; Berne, John D. Flansburgh, James A. Reamer; Bethlehem, Jacob Veeder, Samuel Van Allen; Coeymans, William Tuttle, David A. Witbeck; Guilderland, Henry Hilton, Mich'l H. Frederick; Knox, Steph. Marcellus, John Hungerford; New-Scotland, Henry Callanan, Geo. W. Bender; Rensselaerville, Orson W. Ford, J. C. Hazzard; Watervliet, Jacob Messinger, Peter Bassett; Westerlo, Jacob A. Dorman, Gilbert A. Miller.

Directors—For one year—Willett Searles, Coeymans; A. C. V. Mynders, Guilderland. *For two years*—Levi Dederick, Albany; Jacob Simmons, Bethlehem. *For three years*—James Slingerland. New-Scotland; Ira Boynton, Berne.

Treasurer—Derick V. S. Raynsford, New-Scotland.
Secretary—John M. Bailey, Albany.

The report of the treasurer showed a balance in the treasury of $139.32, after payment of premiums and all other expenses.

Peach Buds—Weather, &c.—*Extract of a letter from Union Springs, N. Y., dated Feb. 25th:* "So far the peach-buds here are entirely uninjured—scarcely one in fifty showihg the blackened centre which indicates destruction by cold. The thermometer has in no instance been below zero on the shores of the lake, although the wind has been extremely strong and cutting. Extraordinaries excepted, we may rely on a good crop of peaches here. I have never known but one instance where the fruit-buds were killed later than the middle of this month, and never but one where the young fruit was destroyed by a snow storm late in spring.

We have had rather an unusual winter, with only two or three days of sleighing—less than I have ever known. With the exception of two or three intensely severe snaps, the winter has been warm and open, and has accommodated both classes of weather-predicters. At the commencement of winter we were assured by several, who judged from some peculiar indications, that we should have a very cold or severe winter—they claim that these cold snaps have sufficiently fulfilled their predictions. Others, with equal confidence, stated we should have a mild, open winter, and they on the other hand, claim that the result has fully borne them out."

Alderney Cream.—A friend writes us from the city of New-York: "Have you ever heard that cream from Alderney milk was excellent for consumptives? I am told that one of the most celebrated physicians in Edinburgh, whose skill in the treatment of consumption is very great, recommends it as *fully equal* to cod liver oil, and much more palatable. If this is a fact, it is worth knowing, and should greatly increase the value of this breed of cattle." We should be glad of the experience of our readers, medical or others, on this question.

Dwarfing Fruit Trees.—Can apples, pears, cherries, etc., be *permanently* dwarfed on root grafts? If they can, please give me the method, and oblige M. G. *Washington.* [There is no way of permanently dwarfing apples on what are termed free stocks. Pruning the root will affect the purpose only temporarily. Planting the trees in iron boxes, or allowing them to grow on poor soil without cultivation, produces a sort of dwarfing, but the fruit will be small and poor in quality; while by the common mode of dwarfing on the Paradise or Doucain, it is improved in size. The same remarks will nearly apply to other trees.]

Clover in Orchards, &c. — Before leaving Western New York and engaging in farming, I think I heard it remarked that apple trees would not succeed in clover fields, especially the large kind, and having an orchard some ten years old which I would like to seed with the large clover for hog pasture this spring, it would oblige me very much to hear from you or your so practical correspondent, "near Geneva," on that subject. Again, I would like to know if it will do to sow Red Top and Timothy on black, sandy and mucky intervale land with Hungarian grass, this spring Will the grass seed grow and not be smothered? C. S. POTTER. [Clover is one of the worst crops for orchards, for while most of the grasses confine their roots to near the surface, the roots of clover go down deep and interfere directly with the roots of the trees. We have seen young orchards nearly killed by a dense growth of clover. The evil, however, is much lessened if it is kept pastured short, and the droppings of the animals serve in part to restore the fertility. It might do as a temporary expedient, for orchards that are nearly grown, and on rich land would probably not check the trees to injure them. The Red-top and Timothy would grow finely on the land described, but the Hungarian grass would have to be sown quite thinly to prevent smothering out.]

Evergreen Hedges.—I want to plant two evergreen hedges, both on the lawn near the house—one for shelter from northwest winds. Please state which is preferable, Norway Spruce or Arbor Vitæ? If the former, how close together should they be set—also what trimming they require, and when and how should it be done. CHESTER CO. FARMER. [Both of these evergreens would form good screens, but the Norway Spruce will usually grow the most rapidly and form the stiffest barrier. The distance asunder is not essential—but the nearer they are placed, the sooner a perfect or impervious screen will be formed—the distance may vary from three to eight feet apart. They should be cut back in the spring of the year, and not sheared to a smooth surface, but cut somewhat unevenly, so that the light and air can be admitted through the branches.]

Screens for Shelter.—Your subscribers here will be pleased to hear, from time to time, hints as to the best means of checking the northwest winds. What say you to white willow as a wind-break? W. P. *Greenwood, C. W.* [The white willow will no doubt do well for a shelter from severe winds—its rapid growth being in its favor; but, to afford full protection it should be in a triple line or belt—a single row not being sufficiently impervious to the winds. An evergreen belt of the Norway spruce, for instance, not being open like one of deciduous trees, would be sufficient in a single row.]

Plans of Barns, &c.—Would you or some of your correspondents, give in the Co. GENT., a plan of a hog-pen of size sufficient for 10 or 15 hogs, with the necessary conveniences for heating water, scalding and hanging up the same, if possible with less heavy lifting than the usual manner, by substituting machinery in place of muscle—in the same building if practicable? Also a plan of a two or three story barn, with space for hay, grain, and if possible straw; cow and horse stables, and carriage room and farm implement room, under one roof, sufficient for a 100 acre farm? J. M. [Our correspondent will find a good plan for a hog-house on page 33, Vol. II, of RURAL AFFAIRS, also on page 67 of the ILLUSTRATED ANNUAL REGISTER for 1864. On page 138 of third volume of RURAL AFFAIRS, he will find a plan of a three-story barn which, with a little variation, will probably suit his purpose exactly.]

Manure for Corn.—I want to plant a young orchard of about 15 acres to *corn*, and manure in the *hill*. What is the *best* manure for that purpose—in my location? What is the relative value of bone dust, (burned,) as it is bought from the sugar refineries? My land is a clay loam. It has been under cultivation without manure ten years, mostly to corn each year. It is situated 90 miles from St. Louis, by railroad. B. SMITH. *Cuba, Mo., Feb.*, 1864. [For general application, suited to all localities, nothing is better than good compost, made of yard or stable manure, or the manure itself well-rotted, so as to be fine and friable. All specific manures, such as bone-dust, give results varying in different localities, and they are, therefore, more or less uncertain. Try the experiment on a moderate scale, noting accurately both the amount used, with cost, and the results.]

Gravel Houses.—Could you or some of your correspondents give me through the Co. GENT., some instruction in regard to building gravel walls for a winter house for storing fruit and vegetables for family use? Could a house be built with lime and gravel that would be safe for that purpose, and cost less than one built of brick, where brick costs $7 or $8 per thousand? H. H. ANDERSON. [If good, pure lime and clean, sharp sand, and good fine gravel can be had near at hand, the walls proposed would be much cheaper than brick, and if well-made would answer every purpose. We have seen some walls of several years standing, where one-fourth part of the best water-lime had been mixed with the common lime, and had been thus rendered much harder and more durable than without this mixture. The walls are erected by placing the mixture of mortar and gravel within two vertical plank sides, and thus adding successive portions as the wall hardens. We cannot give the minute details for the work—will some of our readers furnish them?]

Planting Corn.—In my neighborhood corn is planted in hills—as some of my land is hilly, I am anxious to try drills, and would be glad to know the distance apart which is considered best. I have seen three feet 10 inches recommended—is not this too close for the larger varieties. L. M. N. [The distances asunder must vary greatly with the size of the variety, the small Northern sorts bearing more than twice as many stalks on the same land, as the large Southern. The stalks of the sort mentioned should perhaps be a foot or more asunder in the drills.]

Corn Fodder.—Several of your correspondents, in late numbers of the Co. GENT., have instructed our farmers how to cultivate green corn for fodder only, but omit informing us how to safely cure it for winter keep. This being the most important part, in our opinion, will they not give us the information through your valuable paper. CHESTER CO. FARMER. [The proper curing of thickly sown corn fodder is a matter attended with some difficulty, and usually with a good deal of loss to novices. This kind of fodder, if sown thick enough to produce heavy crops, and to give the fine growth to induce cattle to eat them wholly, will lie so compactly as to be sure to cause heating and fermentation when placed in a stack of any considerable size. Even after exposure for two or three weeks to warm and dry weather, rendering them apparently quite dry, there is still juice enough in the center of the stalks to ruin them when solidly packed, as we have frequently had occasion to witness. In moderate quantities they may be placed in a loft, as soon as harvested, in sloping or upright layers, only thick enough to allow them to dry well. In this way very fine or perfect fodder may be obtained—or in any other way where they can be dried under shelter. Another way is to build them in quite small stacks, placing vertically three or four rails in the centre a few inches apart, to allow the escape of steam. But for ordinary practice, and for large fields, we prefer placing the stalks, as soon as harvested, in large, well built, upright shocks—here they will dry thoroughly without injury, and may be drawn as wanted in winter.]

Potato Bug.—Do you know of any remedy to protect our potatoes from the ravages of this insect? I had half an acre ruined by the insect—not a potato growing larger than a walnut. Two acres in another field, half a mile distant, were hardly touched by them, and the potatoes were good. J. J. C. *North Madison, Ind.* [Fortunately for ourselves, and perhaps unfortunately for our correspondent, we have had no experience whatever with this insect. Can any of our readers give us any information?]

Disease of Sheep.—I have a merino wether who seems inclined to shed his fleece. It has come off in several places from spots as large as one's hand, leaving the skin perfectly bare. There seems to be, so far as I can see, no cutaneous disease, though the skin does not look perfectly healthy His general health is good; eats well. My sheep thus far have been fed on oats and corn-fodder. Can you prescribe for him? No work I have mentions such a case. J. M. S. *Ohio.* [Will some of our best sheep managers please state their experience and what they have found most useful in such cases?]

Raising Grapes.—I have some land in Maryland lying idle, adjoining my farm on the Susquehanna, in or about latitude 39° 40'. The country is hilly—the top soil loamy—the sub-soil yellow and red clay. The land slopes at a pretty sharp angle to the south. The nearest steamboat wharf is six miles distant; the railroad station 11. From these two points the distance to Baltimore is about 30, and to Philadelphia 60 miles. If the climate and soil are favorable, (as they seem to be,) would the distance from the steamboat and railway be too great for the profitable cultivation of the grapevine for its *fruit?* How often would it have to be taken to market, and in what quantity could it be sold through commission merchants? L. M. N. [The locality is doubtless a good one for the grape. It would be necessary to carry the crops in spring-wagons, which would slightly but not materially lessen the profits. The earliest sorts should be carried promptly to market when mature—say every few days—the later sorts allow more time. By proper inquiry, added to a reputation for raising fine fruit, and packing in the best manner, good sales could no doubt be effected. But the business must be constantly conducted with personal care, vigilance, and ability. It will not take care of itself, and cannot be committed to tenants or agents who have little interest in the matter.]

Grafting the Cherry.—Please inform me through the Co. GENT., if the tame cherry can be grafted or budded on the wild or bird cherry stock? W. S. *Duncan, Mich.* [The cultivated cherry cannot be successfully grafted on the common wild species. There is a wild sort that has sometimes been used as stocks, but we believe it is never found in Michigan.]

Grafting, &c.—I should take it as a great favor if you would give a sketch of the knife used in root grafting, mentioned in article on Root Grafting in RURAL AFFAIRS, vol. II. Can the Doucain be propagated by grafting on the apple stock? Which is the proper wild plum to bud upon—what the shape of fruit? An answer through THE CULTIVATOR will much oblige A. FRANCIS, M. D., *Delaware, C. W.* [The knife for root-grafting should be of the best and toughest steel, so that the blade may be kept thin and very sharp. This is all that is essential—the form may be made to suit the convenience of the operator. The Doucain for stocks is usually propagated by stools; but it will, however, succeed well root-grafted on the common apple, the portion of the common apple root being afterwards removed. This would probably be cheaper than importing, at the present rates of exchange. Any wild plum may be taken for stocks that will grow freely. There is a great difference in the habit of different wild plums; some being smaller, are more in the habit of dwarfs than others—these would be more suitable for dwarfing the trees worked upon them, and the others for standards.]

Draining.—I have a low piece of meadow, or more properly *swamp* land, two rods wide, with high hills both sides, and extending some distance, gradually descending and opening into a cove or body of water. A small brook passes through it, with running water most of the time. The piece is now *bogs* and bushes, yielding little if any value. Will you or some correspondent inform me if such a *spot* can be drained with tile? Would a tile drain through the centre, carry the water and *dry the ground?* W. C. S. [A ditch cut through the centre of the wet ground will drain it, but the particular mode to be adopted must depend upon circumstances not mentioned in the above statement, such, for instance, as the amount of water which flows in the brook, the rate of descent, &c. If the quantity of water is small, and the descent considerable, there would be no difficulty in turning the whole into a large pipe or horse-shoe tile; but, if the amount is large and the descent slight, it may be necessary to make an open drain with walled sides. We have found no difficulty in draining a similar piece of land, over which a brook flowed at the wettest season large enough to fill an orifice eight or ten inches in diameter, by building a stone wall on each side, spanning these with large flat stones, and covering the whole with two feet of earth. The soil, however, was clayey and tenacious, and would not sink into crevices. A soil with less clay, and approaching quicksand, would soon fill such a trunk as this. The descent should be uniform to prevent deposits, and the surface water in entering should filter through a bed of coarse gravel or broken stone.]

Wheat Culture at the West.—*C. H. F. of Mitchell, Co., Iowa,* wishes a practical article on wheat culture adapted to that region of country, thinking that one who conducts an agricultural paper can give precise, accurate and reliable directions, suited to every spot throughout the country. We are sorry we cannot accommodate our correspondent, as we could only furnish general directions, with which he is doubtless familiar. If any of our readers in that region can furnish us anything reliable of a local character, we should be glad to hear from them. In the meantime we recommend "C. H. F." to visit the most successful wheat raisers, and obtain their management, which, in the course of a few years, will enable him to act with confidence and success.]

Flax and Barley Grown Together.—I have read an article on sowing flax seed with barley, in THE CULTIVATOR of Jan., 1864, and the result given as 15 bushels from five acres sown with one bushel of seed. The writer says that any common fanning mill with a fine screen, will separate it from the barley, and then says that is all the experience he has had, and the result has been profitable. Will the writer please give for the information of the public, the manner and mode of securing and threshing of the crop—whether or not the threshing was done by a threshing machine or by hand, or by tramping out with horses, as this is of vast importance to the farmer in these times of high prices of labor; and will he be kind enough to state the nature of the soil that he cultivated for the mixed crop, and also his experience whether or not hay seed would do well sown with the mixed crop, or not. If he has not had any experience in seeding down with the mixed crop, I would like his opinion as a practical farmer upon that point, and whether or not the barley sown by him was two or four-rowed. WM. WINSPEAR. *Blossom, N. Y.*

Clover and Plaster.—In this section of country clover is one of the most valuable plants we have to improve a poor farm or to increase the fertility of soil already in good condition, with the least expense, for in growing it takes but little strength from the soil, and the tops, when fully grown, furnish a large quantity of manure, while the decaying roots add to the amount. The growing of clover is a subject of deep interest to every person who makes his living by cultivating the soil, for upon its growth mainly depends our success or failure in raising remunerating crops, and as the usual time of sowing it is drawing near, I should like to hear from practical and scientific men giving their views at length on what kind to sow for manure or for pasture—quantity of seed per acre—time of sowing, &c., not forgetting to give their opinions on using plaster, for or against it. And if in favor of it, state what time clover will be most benefited by its use. Correspondents who know experimentally, will confer a favor by giving their results.

Newfane, N. Y. JAS. MCCOLLUM.

Carriage-House, Barn, &c.—Will some of your numerous readers please publish in the COUNTRY GENTLEMAN, a plan for a plain, substantial, and convenient carriage and horse barn—also a plan for a poultry house that will accommodate some 30 fowls, such as a small farmer can afford to build. J. S. P. *Chenango Co., N. Y.* [Our correspondent will find numerous plans for these buildings in the three vols. of "RURAL AFFAIRS," published at this office.]

Dairying.—Can you tell me in THE CULTIVATOR where I can obtain X. A. Willard's Report upon Dairying, printed, I think, in the last volume of the Transactions of the New-York State Agricultural Society. [Probably by addressing Mr. Willard, at Utica, N. Y.] Also a late report of Mr. S. L. GOODALE, Secretary of the Maine State Board of Agriculture. B. ARMSTRONG. *Clarion Co., Ohio.* [Address Mr. Goodale, Saco, Maine.]

Merino Buck.—I wish to be informed through THE CULTIVATOR, where I can obtain a first class Spanish buck lamb at a reasonable price. One that will shear no less than 20 pounds wool when three years old. A. C. *Stark Co., O.*

Portable Steam Engine.—Can any of your correspondents inform me what a ten horse power *portable engine* would cost—how those like them who have tried them, and whether one of that size would be powerful enough, and could be made to do the sawing of lumber into boards? Taking all things into consideration, would a circular or an upright saw be the most economical? I have tried several times to obtain some information as to their working qualities, and whether they are difficult or not to manage. I wish to buy one if I can meet with one, and if I can put it to sawing lumber into boards, I shall certainly buy one. J. H. H. *Canada East.*

Thatching Haystacks.—I wish to inquire of some of your correspondents or yourselves, how to thatch a stack of hay. I am not at present able to build a hay-barn, and having lost considerable in the stack last year, I would like to try thatching if I can learn how. F. W. B.

Rotation for Heavy Land.—I have 100 acres, independent of a 50 acre permanent pasture, and a 30 acre peach orchard, and a 10 acre timothy lot. It is a heavy, cold soil; *corn does not pay;* wheat pays best; oats do very well; and clover does very well sowed with oats, but does not often do well on wheat. Without being tilled in corn, blue-grass soon takes the land. I should like to know a rotation that would suit the land. It suits best to work in four fields. J. H. *Delaware.* [Probably the best thing that could be done, would be to thoroughly drain the land in the first place. Then plant corn on the sod the first year; sow oats, peas, or barley, the second year; sow wheat the third year, to be followed by clover. If the land is drained, the clover sown with the wheat would probably survive and do well—it is an important crop on heavy soils, as its roots serve an important purpose in keeping the soil loose. It is hard to devise a rotation suited to wet, heavy land—but if it cannot be underdrained, perhaps the best course would be wheat after summer-fallow, then oats followed by clover and timothy, then grass two years. Wet land, like this, is probably better for grass than for much tillage.]

Fruit Gardening.—What works of moderate expense, can I consult with most profit on methods of laying out grounds for small fruits. A. G. E. [We know of nothing equal to the articles on this subject in the different issues of our ANNUAL REGISTER.]

Malt.—*J. K.*—It would occupy too much space to describe the operation of converting barley into malt; beside it would be of no use, as it would be cheaper to buy your malt, which can be procured at the malt houses in this city.

"Salix Alba" on the Brain.—Yes sir, and I've got it too, and I want to know what is good for it—whether, if I plant any considerable amount, it would prove a panacea or not, or only cause a relapse. Please answer me through THE CULTIVATOR, and give me some general directions for planting for hedge, and trimming, culture, protection from mice, rabbits, &c. Yours in a quandary. B. *West LeRoy, Mich.* [We must leave it to some better doctor than we are, to advise our correspondent in this case.]

Chervil.—How is the parsley chervil used, or how is it raised first? I presume the same as parsnips, but do not know. F. A. F. [It is an annual plant, raised from seed the same as the carrot. The tender leaves are used in soups and salads.]

Sheep Losing their Wool.—I think I have had some experience in sheep doctoring which will apply to the case of J. M. S. of Ohio, p. 160. Some twenty of my sheep, two winters ago, lost about half of their wool, and upon examination of the exposed parts, which had been left naked by loss of wool, no cutaneous disease of any sort was visible. I first feared it was *scab*, my flock having been troubled with it, but no appearance of disease could be seen. My sheep were in good health and in general stock condition. I laid the cause of the loss of wool to my feeding too much dry food, and not watering often enough, and so depriving the wool of proper nutriment for its growth. I commenced to water daily, (before having watered every other day,) and to feed a few turnips. I then washed the naked parts with soft soap and water, with a scrubbing brush, and afterwards rubbed in plenty of lard. In three weeks the wool was growing finely. G. A. C. *Ashbridge Lodge.*

Culture of Hops.—Will some of our experienced hop-growers please give their views as to the best mode of planting, culture, and all other other information necessary for successful practice? In this section it is almost impossible to get the poles. Is there any other way to grow them without using poles? NEWFANE.

Plows.—I have looked vainly for an advertisement of the "Conical Plow," in the Co. GENT. Solomon Mead claims large performances for the new invention. Wont somebody or *bodies* tell the readers of this paper what they *know* about the Conical Plow and Allen's Cylinder Plow. Business cards read well, but experience is a safe guide, *generally.*
Vergennes, Vt. PILGRIM.

Sexes of Eggs.—Will some of the readers of your paper please to inform me of the different marks in eggs, and also which produce male and which female birds? A READER.

Dent Corn.—For the information of W. J. P. of Conn., I would say that during a residence of 17 years in Southern Wisconsin, at least nineteen out of twenty fields of corn that I have seen grown there during that time, have been of the Dent variety. Occasionally a farmer would plant a few rows and sometimes a few acres of Flint corn, but I never knew any one to persist in the experiment for more than three years in succession. Where I am now residing in Michigan, it is nearly the only variety raised upon prairie opening and timbered soils.
Kalamazoo Co., Mich. H. K.

A Turkey's Crop.—How much *can* a turkey's crop hold? I have recently seen one taken from a freshly killed gobbler, which weighed six pounds—contents corn and hay. There was'nt much left of the carcass after the crop was removed, though previously it had a fine plump appearance. The gobbler seemed to have been ailing for a year past. W. H. C.

Merino Buck.—In reply to "*A. C., Stark Co., Ohio,*" I would say that I would sell him a buck lamb that would shear when three years old, *with good keep,* from 18 to 22 lbs., for one hundred dollars—for one that would shear at same age from 20 to 25 lbs., one hundred and fifty dollars. Of the Infantado blood. *Pedigree beyond a question.* N. T. SPRAGUE, Jr.
Brandon, Vt., March 19, 1864.

Seeding Down with Flax.—John Scott, in issue of Feb. 11, makes an inquiry in reference to seeding timothy in flax. The finest seeding that I ever saw was sown on flax ground at the time of sowing the flax. Clover was mixed with the timothy however; both did exceedingly well. On soils liable to throw out the young clover plant by frost, flax is just the grain to seed in, for every one knows a flax crop leaves the ground in a very firm condition. E. A. KING. *King's Ferry.*

Peach Trees Destroyed.—I inclose you the proceedings of our County Horticultural Society on last Saturday. By them you see we are in great tribulation about our peach trees. The wood under the bark is about the color of varnished heart-wood of the white oak. The bark in many instances becoming brown, especially in the old trees; in young trees it yet has a healthy appearance. As you know we have had hyperborean weather here this season, (a judgment of God as the secesh say, for our crime of making Missouri a *northern* State,) so this frosting of the peach tree is a new thing to us. We some how have a notion that you are used to such things, and would like you to tell us if we are not more scared than hurt. To be serious, large peach orchards have already fallen under the axe, and more will, unless we get some information that will advise us to spare the trees. My own opinion is, there is a mere possibility, and not much probability, that the trees can live. J. H. TICE. *St. Louis, Feb.* 17, 1864.

Raising Delaware Grapevines from Cuttings.—I see in the Co. GENT. of Feb. 11, an inquiry from A. S. Moss, how to raise Delaware grapevines from cuttings. He wishes some one who has done so with success, to give the *modus operandi.* Now I have never attempted it, but shall this spring; but I have no doubt it can be done. At the State Horticultural Society of Illinois, held at Alton in December last, Dr. H. Schroeder exhibited Delaware vines raised from cuttings, as fine as I ever saw. His *modus operandi* is to set the cuttings in the usual way, keep the ground moist, and covering them during the heat of the day, say from 9 A. M. to 4 P. M., with boards. Dr. Schroeder's principle is, that unless we learn the people how to propagate their own vines, we cannot get the general cultivation of the grape. He is a German, and like all his countrymen, is an enthusiastic lover of the grape. I have no doubt he will furnish any one making further inquiry, any information that may be desired. Whatever he says may be relied on. He resides in Bloomington, Illinois. J. H. TICE. *St. Louis.*

Corn Drill.—Please say to your correspondent, DUNBAR, that the "Barnhill Corn Drill," manufactured here, and sold by us for a number of years, is the best we know of—it is easily worked by one horse, being about the weight and size of a one-horse plow—price $15. Having sold it for several years to the corn regions of Indiana and Illinois, we can recommend it with perfect confidence. F. H. SCHWILL & BRO. *Cincinnati, O.*

Imphee Seed.—Will you or some of your correspondents, inform us through the Co. GENTLEMAN and the CULTIVATOR, where good and pure imphee seed can be obtained, of the variety called "Oom-see-a-na," sometimes called "Otaheite." The little raised hereabouts last year did not ripen. Information on this point would accommodate numerous citizens. C. L. HARTWELL. *Southfield, Berkshire Co., Mass.*

Water Pipe.—I see in your paper of Feb. 18, inquiries about water pipe. Our townsman, E. Jewettt, is manufacturing pipe made from clay, which are somewhat similar to tile, but much nicer in their make, and go together with cement, so as to make a durable pipe. It is the greatest improvement of the age in pipe. I think he has a patent for it. It is in great demand in this vicinity. Tile makers would do well to add the manufacture of water pipe to their works.
St. Alban's Bay, Vt. C. C. BURTON.

CONTENTS OF THIS NUMBER.

THE FARM.

THE GRAZIER AND BREEDER.

HORTICULTURAL DEPARTMENT.

THE DAIRY DEPARTMENT.

DOMESTIC ECONOMY.

BIRDS.

THE BEE-KEEPER'S DEPARTMENT.

ILLUSTRATIONS.